

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

THE CHAMBERLAIN GROUP, INC.,

Plaintiff,

v.

TECHTRONIC INDUSTRIES CO.,
LTD., TECHTRONIC INDUSTRIES
NORTH AMERICA, INC., ONE
WORLD TECHNOLOGIES, INC.,
OWT INDUSTRIES, INC., ET
TECHNOLOGY (WUXI) CO. LTD.,
and RYOBI TECHNOLOGIES, INC.,

Defendants.

Case No. 16 C 6097

Judge Harry D. Leinenweber

MEMORANDUM OPINION AND ORDER

Plaintiff Chamberlain Group, Inc. ("Chamberlain") won a jury verdict against Defendants Techtronic Industries Co., Ltd., Techtronic Industries North America, Inc., One World Technologies, Inc., OWT Industries, Inc., Et Technology (WUXI) Co. Ltd., and Ryobi Technologies (collectively, "TTI"), in which the jury found that TTI willfully infringed two of Chamberlain's patents, U.S. Patent Nos. 7,224,275 ("the '275 patent") and 7,635,966 ("the '966 patent"). Both parties have filed post-trial motions. This opinion presumes familiarity with the case's background, as described in this Court's previous rulings. (See, e.g., Dkt. 104 (preliminary injunction opinion); *Chamberlain Grp., Inc. v. Techtronic Indus. Co.*, No. 16 C 6097,

2017 WL 368027 (N.D. Ill. Jan. 23, 2017) (contempt opinion); *Chamberlain Grp., Inc. v. Techtronic Indus. Co.*, No. 16 C 6097, 2017 WL 1304559 (N.D. Ill. Apr. 7, 2017) (claim construction opinion); *Chamberlain Grp., Inc. v. Techtronic Indus. Co.*, No. 16 C 6097, 2017 WL 3205772 (N.D. Ill. June 28, 2017) (order denying motion to transfer venue).)

I. TTI's Renewed Motion for Judgment as a Matter of Law

The Court "should render judgment as a matter of law 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." *Reeves v. Sanderson Plumbing Prods.*, 530 U.S. 133, 149 (2000) (quoting FED. R. CIV. P. 50(a)). This is a stringent standard under which the Court "construe[s] the facts strictly in favor of the party that prevailed at trial." *Schandelmeier-Bartels v. Chi. Park Dist.*, 634 F.3d 372, 376 (7th Cir. 2011) (citations omitted). On a motion for JMOL, "the court does not make credibility determinations or weigh the evidence," *id.*, though the Court must "disregard all evidence favorable to the moving party that the jury is not required to believe." *Reeves*, 530 U.S. at 151. The court leaves the jury's factual findings "undisturbed as long as they are supported by substantial evidence," *i.e.*, "such relevant evidence as a reasonable mind might accept as adequate to support a

conclusion.” *Akamai Techs., Inc. v. Cable & Wireless Internet Servs., Inc.*, 344 F.3d 1186, 1192 (Fed. Cir. 2003) (quoting *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938)).

In its renewed Motion for JMOL, TTI argues it is entitled to judgment because: (1) the asserted ‘275 patent claims are directed to ineligible subject matter under *Alice Corp. Pty. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014); (2) the ‘275 patent was anticipated or rendered obvious by prior art; (3) TTI’s products do not literally infringe the ‘275 patent; (4) the doctrine of equivalents does not apply here, and the jury should not have considered it; (5) TTI does not induce infringement of the ‘275 patent; (6) TTI does not willfully infringe the ‘275 patent; (7) the ‘966 patent was anticipated or rendered obvious by prior art; (8) TTI does not literally infringe the ‘966 patent; (9) TTI does not induce infringement of the ‘966 patent; (10) TTI does not willfully infringe the ‘966 patent; and (11) Chamberlain failed to prove damages. The Court takes each argument in turn.

A. Ineligibility of Asserted ‘275 Patent Claims

Anyone who “invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof” may obtain a patent. 35 U.S.C. § 101. But because patent protection does not extend to

claims that monopolize the “building blocks of human ingenuity,” claims directed to laws of nature, natural phenomena, and abstract ideas are not patent eligible. *Alice*, 134 S. Ct. at 2354. The Supreme Court instructs courts to distinguish between those claims directed to patent-ineligible subject matter and those that “integrate the building blocks into something more.” *Id.* To do so, courts follow the two-step *Alice* framework. *Id.* First, a court must “determine whether the claims at issue are directed to a patent-ineligible concept.” *Id.* at 2355. If they are not so directed, the claims satisfy § 101, and the inquiry ends. *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1262 (Fed. Cir. 2017). But if the claims are so directed, the court proceeds to step two and “examine[s] the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1361 (Fed. Cir. 2018) (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72, 79 (2012)).

To begin the *Alice* analysis, the court must “articulate what the claims are directed to with enough specificity to ensure the step one inquiry is meaningful.” *Id.* (quoting *Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1347 (Fed. Cir.

2017)). Further, "claims are considered in their entirety to ascertain whether their character as a whole is directed to excluded subject matter." *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015). The court "look[s] to whether the claims . . . focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery." *Smart Sys. Innovations, LLC v. Chi. Transit Auth.*, 873 F.3d 1364, 1371 (Fed. Cir. 2017) (quoting *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1313 (Fed. Cir. 2016)).

Here, TTI claims that wireless transmission of content is an abstract idea, and that the asserted '275 patent claims are directed to nothing more. First off, the cases TTI cites in support of this proposition do not hold that wireless transmission is an abstract idea. *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1258 (Fed. Cir. 2016) (holding that the concept of providing out-of-region access to regional broadcast content is an abstract idea), *cert. denied sub nom. Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 137 S. Ct. 1596 (2017); *Affinity Labs of Tex., LLC v. Amazon.com Inc.*, 838 F.3d 1266, 1271-72 (Fed. Cir. 2016) (holding that the concept of delivering user-selected media content to portable devices is an

abstract idea), *cert. denied*, 137 S. Ct. 1596 (2017). And second, the Federal Circuit has warned against the dangers of over-abstraction, *Core Wireless*, 880 F.3d at 1361 (“[W]e must be mindful that ‘all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.’” (quoting *Mayo*, 566 U.S. at 71)), and disapproved of parties’ efforts to render abstract objects that are not, *id.* at 1362 (“The asserted claims in this case are directed to an improved user interface for computing devices, not to the abstract idea of an index, as argued by LG on appeal.”). Here, the ‘275 patent claims are not directed to the transmission of data, but “to garage door openers that wirelessly transmit status information.” *The Chamberlain Grp., Inc. v. Techtronic Indus. Co.*, 676 F. App’x 980, 982 (Fed. Cir. 2017) (appeal from this Court’s initial claim construction). Having identified what the ‘275 patent claims are directed to, the Court must now determine whether this object is an abstract idea.

“The Supreme Court has not established a definitive rule to determine what constitutes an ‘abstract idea’ sufficient to satisfy the first step of the [Alice] inquiry,” and as such the appropriate analysis “compare[s] claims at issue to those claims already found to be directed to an abstract idea in previous

cases.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016). Post-Alice decisions have found ineligible: paying for mass transit rides with a credit card, *Smart Sys. Innovations, LLC v. Chi. Transit Auth.*, 873 F.3d 1364, 1371 (Fed. Cir. 2017); “the abstract idea of testing operators of any kind of moving equipment for any kind of physical or mental impairment,” *Vehicle Intelligence & Safety LLC v. Mercedes-Benz USA, LLC*, 635 F. App’x 914, 917 (Fed. Cir. 2015); the “abstract idea for increasing sales implemented via ‘some unspecified, generic computer,’” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1266 (Fed. Cir. 2015); creating a “transaction performance guaranty” over an unspecified network, *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014); “offering media content in exchange for viewing an advertisement,” *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715-16 (Fed. Cir. 2014); the abstract idea of a conversion chart, *Tech. Dev. & Licensing, LLC v. Comcast Corp.*, 258 F. Supp. 3d 884, 887 (N.D. Ill. 2017); and the routine and conventional activity of making and storing lists on a microprocessor, *Tech. Dev. & Licensing, LLC v. Gen. Instrument Corp.*, 225 F. Supp. 3d 729, 735 (N.D. Ill. 2016).

Chamberlain, of course, argues the ‘275 patent claims are not directed to abstract ideas as in the cases above and should

pass muster under § 101. In doing so, Chamberlain relies in large part on *Chamberlain Group, Inc. v. Linear LLC*, 114 F. Supp. 3d 614 (N.D. Ill. 2015). In *Linear*, Chamberlain claimed the defendant infringed its GDO patents (though not the patents asserted here), and the defendant moved to dismiss on the grounds that the claims were not directed to patent-eligible subject matter. *Id.* at 621. The court described the relevant patent claims as directed to “opening and closing a movable barrier, (e.g., garage door) using a computer network for communication between the monitor or operator (including a controller), and movable barrier,” *id.* at 626, and held this to be eligible subject matter in part because the claims “ha[d] physical and tangible components that are directed to more than performance of an abstract idea,” *id.* at 625. The court also held that the asserted claims were directed to a technological improvement because they integrated a GDO and a network. *Id.* at 626-27.

Both of these rationales have met with disagreement, however. First, another court in this district observed that *Linear* did not benefit from the guidance of the Federal Circuit’s later decision in *Vehicle Intelligence & Safety LLC v. Mercedes-Benz USA, LLC*, 635 F. App’x 914, 920 (Fed. Cir. 2015), which demonstrated that “the mere presence of a ‘real-world,

physical' purpose, such as controlling equipment, does not show that the claims do not preempt an abstract idea." *Joao Control & Monitoring Sys., LLC v. Telular Corp.*, 173 F. Supp. 3d 717, 729 (N.D. Ill. 2016) (characterizing *Vehicle Intelligence*). Second, an out-of-circuit district court opined that "[t]he alleged technological improvement in [*Linear*] amounts to nothing more than operating an existing device from a remote location over a network," which cannot suffice for a "technological improvement." *ChargePoint, Inc. v. SemaConnect, Inc.*, No. CV 17 3717, 2018 WL 1471685, at *11 (D. Md. Mar. 23, 2018).

Neither of these critiques compels the Court to find patent-ineligible subject matter, however. The *Vehicle Intelligence* decision does not cite *Linear* nor express any opinion on it. And TTI itself points out that *Linear* "involved a different Chamberlain patent . . . that solved a different problem and recited limitations different from those in the claims asserted here." (TTI's Reply in Supp. of Summary Judgment at 1, Dkt. 546.) Unlike *Joao's* characterization of the claims in *Linear*, the claims asserted here are not directed to an abstract idea that merely happens to make use of physical equipment. And as for the *Chargepoint* critique, the technological improvements of the asserted '275 patent claims are not limited to the introduction of network connectivity.

Rather, the asserted '275 claims are directed to a particular improvement over prior art which uses a particular manner of sending and experiencing data. This particularity distinction matters. In *Core Wireless*, the Federal Circuit affirmed the district court's patent-eligibility finding for claims directed to "an improved user interface for computing devices." 880 F.3d at 1362. The court explained: "Although the generic idea of summarizing information certainly existed prior to the invention, these claims are directed to a *particular manner* of summarizing and presenting information in electronic devices." *Id.* at 1362 (emphasis added). Concerning this "particular manner," the court noted that the claims stated specific limitations which "disclose[d] a specific manner of displaying a limited set of information to the user, rather than using conventional user interface methods to display a generic index on a computer. . . . [T]hese claims recite a specific improvement over prior systems." *Id.* at 1363. Indeed, the Federal Circuit has repeatedly found claims directed to patent-eligible subject matter when those claims "focused on various improvements of systems." *Id.* at 1362; see, e.g., *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336, 1338 (Fed. Cir. 2016) (claims reciting a self-referential table for a computer database directed to a particular improvement in the computer's

functionality); *Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1345, 1349 (Fed. Cir. 2017) (claims reciting an improved method of utilizing particularly configured sensors to determine position and orientation of an object on a moving platform, which relied on a particular method of utilizing raw data which eliminated complications inherent in conventional methods); *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1258-59 (Fed. Cir. 2017) (claims reciting programmable operational characteristics that provided flexibility not possessed by the prior art).

Thus, the Federal Circuit's case law suggests that particular and unconventional improvements to prior art are § 101-eligible. Such guideposts protect against overbroad patents preempting "the use of the underlying [abstract] ideas." *See, Alice*, 134 S. Ct. at 2354; *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1341 (Fed. Cir. 2013) (expressing in pre-*Alice* opinion that "[i]n the case of abstractness, the court must determine whether the claim poses any risk of preempting an abstract idea.") (citation and internal quotation omitted); *accord Joao*, 173 F. Supp. 3d at 728 (expressing same).

Chamberlain's '256 patent claims recite such particular and unconventional improvements. The moveable barrier operator

("MBO," often used interchangeably in the briefing with garage door opener, or "GDO") taught by the '275 patent does not merely receive transmissions, as did MBOs in the prior art; instead, Chamberlain's MBO experiences—via an onboard controller—status conditions and then transmits them to other devices. This improvement eliminated the need for a "physical interface . . . to support numerous potentially utilized peripheral devices," thus cutting out "undesired additional cost when part of the [otherwise, necessarily installed] interface goes unused in a given installation." ('275 Patent 1:55-63, Dkt. 1-2).) In addition, the improvements taught by the '275 patent brought new compatibility to the MBO; the prior art, by contrast, "fail[ed] to permit compatible support of a given peripheral," and precluded users from coupling their prior-art MBO with a new function "not specifically supported by a given [MBO]." (*Id.* at 2:4-16.)

Thus, contrary to TTI's assertions, the '275 patent claims are unlike the ones in *Vehicle Intelligence*, which merely specified the abstract idea of testing operators of moving equipment for impairment and indicated that such testing could be conducted more quickly, accurately, and reliably by using an "expert system" that the claims failed to define. *Vehicle Intelligence*, 635 F. App'x at 917. Rather, the '275 patent

claims better fit the mold in *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1259 (Fed. Cir. 2017), where the Federal Circuit held claims patent-eligible which were directed to an improved computer memory system with programmable operational characteristics, which “*provided flexibility that prior art processors did not possess*, and obviated the need to design a separate memory system for each type of processor.” *Core Wireless*, 880 F.3d at 1362 (characterizing the findings in *Visual Memory*) (emphasis added). The ‘275 patent provides exactly this enhanced flexibility, which transcends prior art conventions. Finally, the particularity of the claims—specifically, that the controller must experience the status conditions—diminishes the preemption concerns that undergird the *Alice* inquiry. 134 S. Ct. at 2354.

The asserted claims are directed to patent-eligible subject matter under § 101, so the *Alice* analysis ends before we reach step two. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (citing *Alice*, 134 S. Ct. at 2355). TTI’s JMOL Motion on § 101 ineligibility is denied.

B. Invalidity of the ‘275 Patent

1. Anticipation

Under 35 U.S.C. § 102, a patent is invalid if a prior art reference discloses, either explicitly or inherently, every

limitation of the claimed invention. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 481 F.3d 1371, 1381 (Fed. Cir. 2007) (citation omitted). Judgment as a matter of law is appropriate if no reasonable jury could find, as the one here did, that the prior art did not anticipate, and thus invalidate, the patent. See, *Krippelz v. Ford Motor Co.*, 667 F.3d 1261, 1268 (Fed. Cir. 2012) (applying Seventh Circuit JMOL standard). As it argued at trial, TTI contends that the Menard PCT prior art anticipated claims 1, 5, and 15 of the '275 patent.

These claims recite:

1. A movable barrier operator comprising:

a controller having a plurality of potential operational status conditions defined, at least in part, by a plurality of operating states;

a movable barrier interface that is operably coupled to the controller;

a wireless status condition data transmitter that is operably coupled to the controller, wherein the wireless status condition data transmitter transmits a status condition signal that:
corresponds to a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states; and

comprises an identifier that is at least relatively unique to the movable barrier operator, such that the status condition signal substantially uniquely identifies the movable barrier operator.

5. The movable barrier operator of claim 1 wherein the plurality of operating states includes at least one of:

moving a movable barrier in a first direction;
moving the movable barrier in a second direction;
reversing movement of the movable barrier;
halting movement of the movable barrier;
detecting a likely presence of an obstacle to movement
of the movable barrier;
detecting a likely proximal presence of a human;
receiving a wireless remote control signal;
receiving a wireline remote control signal;
receiving a learning mode initiation signal;
a lighting status change;
a vacation mode status change;
detecting a likely proximal presence of a vehicle;
detecting the identification of a proximal vehicle;
and
receiving an operating parameter alteration signal.

15. The method of claim 14 wherein detecting at least one predetermined condition includes detecting at least one of:

moving a movable barrier in a first direction;
moving the movable barrier in a second direction
reversing movement of the movable barrier;
halting movement of the movable barrier;
detecting a likely presence of an obstacle to movement of
the movable barrier;

detecting a likely proximal presence of a human;
receiving a wireless remote control signal;
receiving a wireline remote control signal;
receiving a learning mode initiation signal;
a lighting status change;
a vacation mode status change;
detecting a likely proximal presence of a vehicle; and
receiving an operating parameter alternation signal.

(²⁷⁵ Patent 8:5-21, 8:30-46, 9:39-55, Dkt. 1-2.) Claim 1 identifies a movable barrier operator comprising both a controller and a transmitter. (*Id.* at 8:5-21.) But TTI did not present any evidence that the Menard GDO 1000—as opposed to an add-on module to that GDO—contained a controller or wireless transmitter. Indeed, Chamberlain's technical expert, Dr. Rhyne, presented evidence showing that the Menard GDO 1000 and the system 10000 (the aforementioned module) each have their own, separate controllers and power supplies. (*Id.* 1297:16-1299:8.) In response to this, TTI emphasizes that the Chamberlain claims do not require the controller to be housed in the GDO's head unit. (See, Chamberlain's Resp. to JMOL Mot. at 9, Dkt. 651 (Chamberlain admitting its asserted claims do not require "the controller, the movable barrier interface, and the wireless status condition transmitter to be located in a single

housing.")) But Chamberlain explains that the key limitation in its claims is not whether the controller and transmitter share a housing, but instead whether they are part of the GDO at all, instead of—as in Menard's system 10000—part of a separate module that can send signals to the GDO. Chamberlain presented evidence of this distinction through Dr. Rhyne's testimony:

A: [T]he . . . Menard module . . . has a separate module that you add on top of the garage door and, as a result, the controller in the module is what sends out the state signal, not the controller in the GDO.

. . .

Q: Dr. Rhyne, you were asked a couple questions about whether the Menard module, that modular system we discussed, system 10000, can send control signals to the GDO 1000. In your opinion, is that -- does that make the module in Menard a movable barrier operator under the Court's constructions?

A: No. It's not the movable barrier operator in Figure 37. That movable barrier operator is the GDO 1000 down in the bottom. The top guy is not a movable barrier operator.

Q: And can a smartphone also send control signals to open and close a door on a garage door opener?

A: Yes.

Q: And is a smartphone a movable barrier operator?

A: Not in that sense, no, any more than the pushbutton switch, the 6500 is a movable barrier operator.

(Rhyne Tr. 1310:18-21, 1374:9-22.) This is substantial evidence that Chamberlain's asserted claim 1 claims limitations not

present in the prior art, so JMOL is not appropriate as to TTI's anticipation argument as to claim 1.

As for claims 5 and 15, Chamberlain contends that JMOL is not appropriate because both claims recite a limitation that is not disclosed in the Menard prior art. Specifically, claim 5 depends from claim 1's recitation of "a controller having a plurality of potential operational status conditions defined, at least in part, by a plurality of operating states," and claim 15 depends from claim 14's recitation of "a movable barrier operator detecting at least one predetermined condition as corresponds to a present operational status defined, at least in part, by at least two operating states[.]" (See, Rhyne Tr. 1309:21-22; Foley Tr. 871:5-8 (both citations describing dependent relationships of claims).) In contrast, the Menard prior art does not explain how its signals are defined:

Q. Do [Dr. Foley's slides concerning the Menard prior art] show a condition defined by a plurality of states as claimed?

A. They show things that the Menard module can report like whether the door is open, closed, or partially closing, freezing, normal, overheating on the temperature of the unit, but it doesn't - there's no disclosure of how those things are defined, and there are other ways to do it than having states that would define those conditions.

Q. Can you provide us one example?

A. A good one would be door position. You can report the number of times the motor has turned, so the rotations. And every rotation incrementally pulls the door up or, if it's going the other way, it lets it down a little bit. And then you can leave it up to the receiver at the other end to decide how many rotations is it going to take to get the door open, how many is it going to take to get the door to close. And if it sees the rotations coming at a different speed, it knows that it's partially closing. Those are not reporting specific states in the message itself.

(Rhyne Tr. 1307:16-1308:9.) Simply put, the jury heard substantial evidence that while the Menard PCT status conditions could be defined in a number of ways, Chamberlain's '275 claims limit its status conditions to one type of definition. Because that limitation appears only in the asserted claims, the Menard prior art does not anticipate them. *See, Liebel-Flarsheim Co.*, 481 F.3d at 1381.

2. Obviousness

TTI also contends that the Cohen prior art renders the asserted claims obvious. Under 35 U.S.C. § 103, "[o]bviousness is a question of law based on underlying findings of fact." *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1237 (Fed. Cir. 2010) (citation omitted). The underlying factual inquiries include: (1) the scope and content of the prior art, (2) the differences between the prior art and the claims at issue, (3) the level of ordinary skill in the art, and (4) any relevant secondary considerations, such as commercial success, long felt but

unsolved needs, and the failure of others. *Id.* (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)).

TTI contends that a person of ordinary skill in the art would have been motivated to combine the Menard PCT door-position prior art discussed earlier with the Cohen prior art, which TTI maintains teaches the signal format recited in the '275 patent. But at trial, Chamberlain presented evidence showing that the Cohen prior art does not claim sending status conditions defined by two or more states. (Rhyne Tr. 1312:3-9 ("All [the Cohen reference] does is it talks about a state signal that indicates in a way that is not described that the door is opening, closing, opening, or closing. And as I said, there are certainly ways to do it that doesn't involve sending a state -- a status condition signal that gives you two states as, for example, that rotational information as an alternative.")) Further, Dr. Rhyne explained that just like the Menard prior art, the Cohen reference teaches an add-on modular device, meaning that once again a controller in the module sends out the signal--not the controller in the GDO itself. (Rhyne Tr. 1310:11-21.) Because, according to Dr. Rhyne's testimony, this combination does not teach the limitations of the '275 patent claims, the jury heard substantial evidence supporting a finding of nonobviousness. See, *Hearing Components, Inc. v. Shure Inc.*,

600 F.3d 1357, 1374 (Fed. Cir. 2010), *abrogated on other grounds by Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014).

C. Literal Infringement of the '275 Patent

This argument is nothing new. TTI moved for pre-trial summary judgment of non-infringement of the '275 patent, and the Court denied that motion. (June 21, 2017, Order, Dkt. 397.) TTI posits once more that the Ryobi signal does not "correspond[] to a present operational status condition defined, at least in part, by *at least two from the two or more* operational conditions being experienced by the controller," as recited in claims 1 and 24. *Chamberlain*, 2017 WL 1304559 (emphasis added). According to TTI, this is so because the Ryobi controller cannot simultaneously experience two operational conditions given that—in TTI's reading—such conditions are mutually exclusive, e.g., "[t]he controller cannot simultaneously be experiencing door open, closed, opening, closing, or fault." (Mem. in Supp. at 18, Dkt. 618.) But as the Court has already noted, this contention misses the mark: "[M]any (if not all) GDO components contain multiple potential but mutually exclusive positions or states, making it unclear how a transmitter as [TTI] conceive[s] [is recited by the '275 patent] would even be operative." (June 21, 2017,

Order at 4, Dkt. 397.) In short, TTI's renewed argument depends upon a narrow reading of "operational status condition" which does not square with this Court's earlier construction of the term as encompassing status conditions of other categories of information the controller may experience (for example, light on/off, vacation mode on, etc.). (See, *id.* at 5-6 ("[a present] status condition [may] be *defined* (or determined, or its meaning clarified) by multiple operational conditions being experienced by the controller (for example, lights on in tandem with, as a result of, or in response to the garage door's opening, a sensor's detection of a proximal vehicle, or a user's flipping the vacation mode switch).").)

Claim 1 recites a transmitter that transmits "a status condition signal that: corresponds to a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states" ('275 Patent 8:13-17, Dkt. 1-2.) At trial, Chamberlain's evidence demonstrated that the Ryobi GDOs (both the GD200 and the revised, GD200A) do exactly that. Dr. Rhyne explained that in both versions of the Ryobi GDO, the device "send[s] a signal corresponding to a present operational status condition." (Rhyne Tr. 288:4-5.) Such a signal (for example, "light on") is defined both by the status condition it carries and the

potential, but not present, condition(s) it necessarily precludes (in this example, "light off"). (See, June 21, 2017, Order at 4, Dkt. 397 (indicating that Court's *Markman* order did not limit the operational conditions that are "experienced by the controller and capable of defining its operational status condition(s)" to only potential or to only present status conditions).) Dr. Rhyne explained as much to the jury:

[N]otice this light state [in the Ryobi electronic system architecture and design specifications]. This is the status condition on the light, and it's got two states. Remember, we had to have a plurality of states, two or more: Off and on. This is the status condition for the door. It's got five states: Closed, open, closing, opening, or a fault. . . . [Y]ou can see here are those five states that are available. So I've got a status for the door defined by five possible states, the same words [as in the '275 patent].

(Rhyne Tr. 275:15-20, 277:14-17.) Chamberlain presented the jury with substantial evidence that accorded with the Court's claim constructions showing that the device taught by the '275 patent and the Ryobi GDOs send signals defined in the same way. A reasonable jury hearing this testimony could find literal infringement, so the Court will not grant TTI's JMOL and vacate that finding.

D. Doctrine of Equivalents Infringement of the '275 Patent

"The doctrine of equivalents allows the patentee to claim those insubstantial alterations that were not captured in

drafting the original patent claim but which could be created through trivial changes.” *AquaTex Indus., Inc. v. Techniche Sols.*, 419 F.3d 1374, 1382 (Fed. Cir. 2005) (quoting *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 733 (2002)). Here, TTI marshals two arguments against the jury’s finding that TTI infringed the ’275 patent under the doctrine of equivalents. First, TTI contends that because Chamberlain narrowed its claims during prosecution, it is estopped from arguing the doctrine of equivalents. Second, TTI argues that even if Chamberlain is not so estopped, Chamberlain nevertheless failed to present the jury with substantial evidence on the equivalents theory. Neither argument is persuasive.

1. Prosecution History Estoppel

We have seen TTI’s first argument before, in rebuttal to Chamberlain’s pretrial motion to enforce the Court’s preliminary injunction. (Dkt. 228 at 10-11.) Once more, the argument runs like this: Under *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 736, 740 (2002), once a patent applicant narrows his application via amendment and thus relinquishes subject matter, the applicant cannot later rely on the doctrine of equivalents to claim infringement by a device that falls between the broader and the narrower language, unless the applicant can show the amendment does not surrender the

particular equivalent. See, *Festo*, 535 U.S. at 740; accord *Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1344 (Fed. Cir. 2005) ("The doctrine of prosecution history estoppel serves to limit the doctrine of equivalents when an applicant makes a narrowing amendment for purposes of patentability, or clearly and unmistakably surrenders subject matter by arguments made to an examiner."). According to TTI, Chamberlain interjected such a limitation during the prosecution of '275 patent to overcome the Examiner's initial rejection of independent claim 1 based on the Doyle reference. The Court previously summarized the pertinent prosecution history as follows:

In the relevant amendment and remarks, the Applicant traversed Doyle by citing to Figure 2 of the Doyle and its associated text, which disclose a mercury switch oriented within a radio frequency ("RF") transmitter where the mercury bead only causes transmission of the RF signal when the garage door is in *an intermediate position*. The Application contrasted this facet of Doyle, in which the transmitted RF signal is keyed to a *single position or state of Doyle's garage door*, with its amended claims, which "require a wireless status condition data transmitter to transmit a status condition signal that corresponds to a present operational status condition defined, at least in part, by **at least two operating states** from the plurality of operating states."

Chamberlain, 2017 WL 368027, at *5 (citing File History, App. No. 10/477,633, June 15, 2005, Amendment at 12 (emphasis in original)). Thus, "Doyle could only ever be defined by one operating state: a single intermediate position of a garage

door, as opposed to the dual operating states of open/closed."
(*Id.* at 14-15.)

The problem with TTI's argument is that even if Chamberlain's prosecution amendments narrowed the '275 patent, TTI's Ryobi GD200A does not fall "between the broader and the narrower language." *Festo*, 535 U.S. at 740. As discussed above, Dr. Rhyne explained that both the Ryobi and Chamberlain GDOs use status conditions defined by a plurality of states (e.g., two states—on and off—define the status condition of the light; five states—closed, open, closing, opening, and fault—define the status of the door, etc.). (See, Rhyne Tr. 275:15-20, 277:14-17.) TTI now makes much of another part of Dr. Rhyne's testimony, which TTI takes as proof that Dr. Rhyne later reversed his position and agreed that the Ryobi status conditions are defined by only one state at a time. However, TTI's selection of that testimony leaves out Dr. Rhyne's clarification and is not representative. The full selection is this:

Q: So I asked you this question [in your deposition], Dr. Rhyne. "So if we're talking about the present operational status condition," present operational status condition, "of the door, at any point in time, it is only defined by one of the states that the door can be in, correct?" And you asked me, "One of the operating states?" I said, "Correct." And your answer was, "Yes," correct?

A: I interpreted what you asked me to mean as I did the previous one, what's in that transmitted status condition that's sent out by the data transmitter. There's always only one in the message. There's not two.

Q: That's right, because the signal is defined by the one state that the door can be in, as your answer said here, correct?

A: When you transmit the present operational status condition, you transmit only one of the states.

Q: And that's what defines that signal, correct?

A. At that time, you send out that one.

(Rhyne Tr. 354:4-22.) As Dr. Rhyne's clarification makes clear, he did not opine that the Ryobi devices operated based on status conditions defined at a given time by only one state; rather, Dr. Rhyne simply described the signal *format* of the GD200A device, which sends several discrete pings of data seriatim rather than sending a single batch, as does the pre-revision GD200. To the extent Chamberlain narrowed its claims during prosecution, TTI has not shown that its Ryobi GDOs fall between the broader and narrower language. See, *Festo*, 535 U.S. at 740 (holding that applicants only surrender equivalents falling between the broader and narrower, post-amendment language). As such, TTI has failed to show that prosecution estoppel should have precluded Chamberlain from presenting its equivalents theory to the jury.

2. Substantial Evidence of Equivalents

Next, TTI argues that Chamberlain failed to present the jury with substantial evidence on the doctrine of equivalents theory. Such evidence must establish "equivalency on a limitation-by-limitation basis by particularized testimony and linking argument as to the insubstantiality of the differences between the claimed invention and the accused device or process." *Akzo Nobel Coatings, Inc. v. Dow Chem. Co.*, 811 F.3d 1334, 1342 (Fed. Cir. 2016) (internal quotations omitted) (quoting *Tex. Instruments Inc. v. Cypress Semiconductor Corp.*, 90 F.3d 1558, 1566 (Fed. Cir. 1996)).

Here, TTI argues that Chamberlain failed generally to provide evidence showing equivalents for claims 5 and 14 and failed specifically to provide equivalency evidence of the unique identifier limitation required in claims 1 and 14. These assertions do not accurately describe the evidence presented as trial. Dr. Rhyne clearly articulated the basis for his belief concerning equivalency for claim 1. (Rhyne Tr. 267:16-296:9 (concluding with "[w]e have [now discussed every element of claim 1], and I've explained why in my opinion each and every element is met either literally under the way I think the claim ought to be interpreted or under the doctrine of equivalents under the way TTI thinks it should be interpreted.")). Claim 5

incorporates all of the limitations of claim 1, which Dr. Rhyne explained at trial: "[Claim 5] basically is what's called a dependent claim. So it starts out by saying 'the movable barrier operator of Claim 1.' So to infringe claim 5, you've got to meet all the limitations of claim 1." (Rhyne Tr. 296:13-16.) At trial, then, Chamberlain needed to present evidence of infringement under the doctrine of equivalents for all limitations of claim 1—which, as discussed, it did—as well as for the limitation unique to claim 5. That remaining limitation concerns the '275 patent's reliance on a "plurality of operating states [that] includes at least one of" any of the fourteen listed states, including, for example, "moving a movable barrier in a first direction; moving the movable barrier in a second direction; . . . halting movement of the movable barrier; . . . receiving a wireless remote control signal; . . . [and] a lighting status change." ('275 Patent 8:30-36, Dkt. 1-2.) There was no shortage of evidence at trial concerning the Ryobi GDO's equivalent use of a "plurality of operating states." (See, e.g., Rhyne Tr. 275:15-20 (reciting operating states in Ryobi GDO, including light states and door position states), 354:4-22 (discussing plurality of operating states in Ryobi GDO).)

As to claim 14: Dr. Rhyne testified that claim 15 depends from claim 14. He also testified that the Ryobi devices infringe on all of the elements in claim 14, including the two elements that do not also appear in claim 1. (Rhyne Tr. 298:23-299:24.) TTI's final argument—that Chamberlain failed to present evidence concerning the unique identifier limitation required in claims 1 and 14—similarly ignores testimony and thus fails. (Rhyne Tr. 294:15-295:3 (explaining the unique identifier recited in claim 1 and describing a similar unique identifier employed by the Ryobi devices).) In sum, TTI's characterizations of the evidence produced at trial are not accurate. Through Dr. Rhyne, Chamberlain produced substantial evidence in support of its doctrine of equivalents theory on a limitation-by-limitation basis. See, *Akzo Nobel*, 811 F.3d at 1342. TTI's JMOL Motion on this ground is denied.

E. TTI Induces Infringement of the '275 Patent

TTI has no argument here. "Inducement can be found where there is '[e]vidence of active steps taken to encourage direct infringement,' which can in turn be found in 'advertising an infringing use or instructing how to engage in an infringing use.'" *Takeda Pharm. U.S.A., Inc. v. W.-Ward Pharm. Corp.*, 785 F.3d 625, 630-31 (Fed. Cir. 2015) (quoting *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 936 (2005)).

"Such instructions need to evidence 'intent to encourage infringement.'" *Id.* (quoting *Vita-Mix Corp. v. Basic Holding, Inc.*, 581 F.3d 1317, 1329 (Fed. Cir. 2009)). Dr. Rhyne testified about advertising language appearing on the Ryobi website and Ryobi's GDO packaging that showcases the capability to "[m]ake your garage smart. Control, monitor, and personalize your garage door remotely." (Rhyne Tr. 306:12-307:24.) And the jury found that the Ryobi devices infringe the '275 patent. A reasonable jury having made that determination could further find that Ryobi's advertisements encouraging users to deploy Ryobi GDOs for an infringing use constitute inducement. TTI's JMOL Motion is denied on this ground.

F. Willful Infringement of the '275 Patent

The Court will not overturn the jury's finding that TTI willfully infringed the '275 patent. As set forth in greater detail below, the jury heard evidence that TTI knew before it developed the Ryobi GD200 that: (1) Chamberlain had a broad GDO-related patent portfolio, (2) as such, development in the GDO space would be hazardous, and (3) the '275 patent existed and covered Chamberlain's GDO. (*See, infra* at Part IV.) TTI's repeated assertion that its engineers who deconstructed the Chamberlain GDO "did not see" the '275 patent marking on the device is at this point feckless. (Mem. in Supp. of JMOL at 26,

Dkt. 618.) The jury heard this, too, and apparently found it incredible or at least not exculpating in light of the many other ways TTI was put on notice of the '275 patent and the general dangers of possibly treading on Chamberlain's GDO IP. (See, *infra* at Part IV.) TTI's JMOL Motion is denied as to the jury's willfulness determination.

G. Invalidity of '966 Patent Based on Prior Art

1. Craftsman Prior Art - Anticipation

At trial, the parties' experts debated whether a Craftsman GDO in prior art anticipated the '966 patent. Through related testimony, the jury heard substantial evidence of a limitation recited by the '966 claims that is not disclosed by the Craftsman prior art. 35 U.S.C. § 102; *Liebel-Flarsheim Co.*, 481 F.3d at 1381 (reciting that patent claims are invalid as anticipated by prior art only if that art discloses every limitation of the claimed invention).

Claim 9 recites:

9. A battery charging apparatus, comprising:

a battery charging station in electrical communication with a rechargeable battery and in electrical communication with a head unit of a barrier movement operator for supplying power to at least one rechargeable battery, the at least one rechargeable battery being removably connectable to electrically powered equipment other than and physically separate or separable from the barrier movement operator to

provide power to the electrically powered equipment;
and

circuitry electrically connected to the battery
charging station to supply power from the at least one
rechargeable battery to the head unit.

('966 Patent 8:8-22, Dkt. 1-1.) Although claim 9 recites a
"removably connectable" battery, the Craftsman GDO recites no
such limitation. The Court construed "removably connectable" as
"configured to allow a user to insert, plug in, or otherwise
manually attach and detach." *Chamberlain*, 2017 WL 1304559, at
*24; accord Rhyne Tr. 1317:9-12 (reciting same). The Ryobi GDOs
have batteries that "just snap[] out," but the Craftsman GDO
battery is attached by screws to either the top of the GDO or to
the ceiling above the GDO. (Rhyne Tr. 1316:17-1318:6.)
According to Dr. Rhyne, the Craftsman battery must be screwed in
one way or another, because otherwise the battery could fall off
the unit when it vibrates while raising or lowering the door.
(*Id.* at 1316:17-21.) In contrast, TTI's technical expert, Dr.
Foley, maintained that a user's ability to remove those screws
rendered the Craftsman battery removably connectable, but Dr.
Rhyne rebutted that interpretation:

I think [that in explaining his position as to why the
Craftsman battery is removable connectable, Dr. Foley]
said, 'Well, I could go up there and undo the screws
or something.' That certainly isn't something that the
typical garage door user - think about it for
yourself. Are you going to go up there, back your car

out, get up on a ladder, and go up and unscrew it just so you can move it to another garage door, maybe if you have a two-car garage, especially when that other door already has a battery bolted on top of it to start with. That's just not - that's not a reasonable interpretation of the claim.

(Rhyne Tr. 1317:16-24.) The jury apparently credited Dr. Rhyne's interpretation, which the Court agrees provided substantial evidence from which the jury reasonably could have concluded that the Craftsman prior art did not anticipate the '966 patent. *See, Akamai Techs., Inc. v. Cable & Wireless Internet Servs., Inc.*, 344 F.3d 1186, 1192 (Fed. Cir. 2003).

But there is more. There is another limitation in claim 9 which the parties debate at length. That claim discloses a battery removably connectable "to electrically powered equipment other than and physically separate or separable from the barrier movement operator." ('966 Patent 8:15-17, Dkt. 1-1.) At trial, Dr. Foley opined that the other electrically powered equipment disclosed here could be a second GDO, and that such an arrangement is possible under the Craftsman prior art. Dr. Rhyne disagreed, and relied on the specification for his conclusion that the other equipment cannot simply be a second GDO, and thus the '966 patent discloses a limitation not present in Craftsman. (Rhyne Tr. 1315:10-1316:11.) "[W]hen there is conflicting testimony at trial, and the evidence overall does

not make only one finding on the point reasonable, the jury is permitted to make credibility determinations and believe the witness it considers more trustworthy." *MobileMedia Ideas, LLC v. Apple Inc.*, 780 F.3d 1159, 1168 (Fed. Cir. 2015) (citation omitted). The evidence did not make only one of the witnesses' interpretations reasonable, so the Court will not disturb the jury's finding that Craftsman did not anticipate the '966 patent.

2. Crusius Prior Art - Anticipation and Obviousness

Parallel problems doom TTI's JMOL Motion concerning the Crusius prior art. As with Craftsman, TTI maintains that Crusius anticipates the '966 patent. But Dr. Rhyne testified that Crusius does not invalidate any of the '966 claims because the Crusius patent "covers essentially the same thing as the Craftsman battery." (Rhyne Tr. 1324:7-19.) He added that the Crusius patent does not disclose a "removably connectable" battery nor any separate equipment that could be powered by the battery. (*Id.*) Dr. Foley contradicted this latter finding in much the same way as he did Dr. Rhyne's opinions on Craftsman, that is, by explaining that the Crusius battery could be plugged into a second GDO and thereby satisfy the "powered equipment other than and physically separate or separable from" limitation. Again, Dr. Rhyne explained that the '966

specification required "separate" equipment other than a second GDO, and the jury was entitled to credit his interpretation over Dr. Foley's competing one. *MobileMedia Ideas*, 780 F.3d at 1168.

As for obviousness, TTI does not articulate any justification for its belief that no reasonable jury could have failed to find that the Crusius prior art renders obvious the asserted claims. And to any extent, Chamberlain points out that Dr. Rhyne testified regarding secondary considerations of nonobviousness which the jury may, and apparently did, choose to credit. See, *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349 (Fed. Cir. 2012) (considering commercial success, industry praise, unexpected results, copying, industry skepticism, licensing, and long-felt but unsolved need in the court's analysis of secondary indicia of nonobviousness). Specifically, Dr. Rhyne described an internal patent disclosure filled out by TTI employees describing an idea similar to the '966 patent claims:

Q: Okay. And then the last topic for you, Dr. Rhyne, secondary considerations with respect to the '966 patent. Have you seen any secondary considerations to show that the '966 claims are not obvious?

A: Yes.

. . .

[Introducing the internal patent disclosure]

. . .

A. [Reading from the disclosure:] "Our idea is to power the garage door opener from one or more removable battery packs such as a power tool battery. . . . Another facet of this invention is the ability to potentially charge the battery packs while inserted into the garage door." **They're saying they thought that this was something, evidence of a long-felt need.** Unfortunately, it was. It's just that the need had already been met by Chamberlain.

Q. Exactly. And just for clarity, this is a form by TTI that was filled out, I guess, before or after the '966 patent?

A. After.

(Rhyne Tr. 1324:20-1326:2 (emphasis added).) According to Dr. Rhyne, TTI's internal patent disclosure demonstrated an industry-perceived, long-felt need for a GDO using a removably connectable, rechargeable battery, which is exactly what the '966 patent teaches. Chamberlain thus presented the jury with a nexus between the evidence and the merits of the claimed invention as required for the jury to accord these secondary considerations of nonobviousness substantial weight. *FastShip, LLC v. United States*, 131 Fed. Cl. 592, 620 (2017) (quoting *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1246 (Fed. Cir. 2010)).

In sum, because the jury heard substantial evidence that the Crusius prior art neither anticipated nor rendered obvious the '966 patent claims, TTI has no basis for JMOL relief stemming from Crusius.

3. Weik Prior Art - Anticipation and Obviousness

TTI's contentions concerning the Weik prior art ultimately meet with the same outcome as the other prior art arguments considered above. The Weik patent teaches a motor-operated door, and discloses "two different embodiments, one of which has a portable battery and no charger and one of which has a non-portable battery but does have a charger." (Rhyne Tr. 1322:2-1323:3.) TTI does not argue that either embodiment, on its own, anticipates or renders obvious the '966 patent. Instead, TTI argues these problems arise for the '966 patent once the two Weik embodiments are combined. Neither of these arguments meets the high bar required to merit JMOL.

First, to obviousness: "Combining two embodiments disclosed adjacent to each other in a prior art patent does not require a leap of inventiveness"; accordingly, such combinations can render an asserted patent obvious. *Boston Sci. Scimed, Inc. v. Cordis Corp.*, 554 F.3d 982, 991 (Fed. Cir. 2009). However, "[o]bviousness may be defeated if the prior art indicates that the invention would not have worked for its intended purpose or otherwise teaches away from the invention." *Meiresonne v. Google, Inc.*, 849 F.3d 1379, 1382 (Fed. Cir. 2017) (citing *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1326 (Fed. Cir. 2009)). "A reference teaches away 'when a

person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken' in the claim." *Id.* (quoting *Galderma Labs., L.P. v. Tolmar, Inc.*, 737 F.3d 731, 738 (Fed. Cir. 2013)). Dr. Rhyne explained at trial that the Weik patent teaches away from combining the two embodiments: The integrated charger embodiment offers the benefit of not requiring service personnel to bring a rechargeable battery with them when they service the motor-operated door taught by Weik, and, further, if service personnel brought a rechargeable battery to such a door, the trickle charger—which is designed to keep the plugged-in battery always charged—would take "a couple of hours" to charge the newly installed battery. (Rhyne 1321:23-1324:6.) Dr. Foley expressed a competing opinion, noting that the Weik patent teaches that "there are many ways to interconnect various electrical elements to achieve the functions [of the Weik invention]," which Dr. Foley took as "teaching . . . to take the trickle charger from [the integrated embodiment] and drop it [into the non-integrated embodiment]." (Foley Tr. 940:20-941:4.) But once more, because Dr. Foley's is not the only reasonable interpretation on this point, the Court will not overrule the jury's apparent credit

for Dr. Rhyne's testimony over his counterpart's. *MobileMedia Ideas*, 780 F.3d at 1168.

Next, to anticipation: TTI correctly points out in its reply that whether prior art "teaches away" from combinations is only a part of the obviousness analysis and "is not relevant to an anticipation analysis." *Krippelz v. Ford Motor Co.*, 667 F.3d 1261, 1269 (Fed. Cir. 2012) (citation omitted) (emphasis added). As such, Dr. Rhyne's testimony concerning the Weik patent's teaching away from combining its embodiments cannot be substantial evidence against anticipation. Given this, TTI suggests that combining the embodiments covers every limitation in the '966 patent, and so the Weik combination anticipates, and thus invalidates, the patent. TTI's argument is faulty. Though combinations of adjacently disclosed embodiments may be considered under the obviousness analysis, the same is not true for anticipation. *See, Microsoft Corp. v. Biscotti, Inc.*, 878 F.3d 1052, 1069 (Fed. Cir. 2017) (citations omitted) ("[A]nticipation is not proven by 'multiple, distinct teachings that the artisan might somehow combine to achieve the claimed invention.'"). TTI suggests that Dr. Foley testified that "it is appropriate to use elements from the two figures in his anticipation analysis." (Resp. at 36, Dkt. 618 (citing Foley Tr. 940:3-15, 1023:18-19).) If this was Dr. Foley's method, it

was improper as a matter of law. And because Dr. Foley conceded that no one Weik embodiment anticipates all of claim 9's limitations, the jury was entitled to find that the Weik patent did not anticipate that claim. (See, Foley Tr. 1023:14-19 ("Q: [Y]ou couldn't get all the elements of the claim here from one of the embodiments, you needed to mix and match from the two embodiments; is that right? A: I pulled from both as Weik very clearly says modifications are expected.").) TTI's JMOL Motion is denied on these grounds.

H. Literal Infringement of '966 Patent

Dr. Rhyne walked through each element of each of claims 9, 14, and 15-18 of the '966 patent and explained that the Ryobi GDO infringes each one. (Rhyne Tr. 318:11-328:1.) Against this evidentiary backdrop, TTI argues that a reasonable jury still could not find TTI literally infringed because the '966 patent recites "a battery charging station in electrical communication with a *rechargeable battery*" and "a method of power flow between at least one rechargeable battery, a barrier movement operator, [and] *electrically powered equipment other than and physically separate or separable from the barrier movement operator.*" ('966 Patent 8:10-11, 40-44, Dkt. 1-1 (emphasis added).) TTI maintains, not for the first time, that because it does not sell the Ryobi GDOs with rechargeable batteries or any other,

separate electrical equipment, they cannot be found to have infringed the '966 patent.

While "one may not be held liable under § 271(a) for 'making' or 'selling' less than a complete invention," *Rotec Indus., Inc. v. Mitsubishi Corp.*, 215 F.3d 1246, 1252 (Fed. Cir. 2000), several courts have found that where an alleged infringer sells "all of the elements of the patented combination as a single, albeit disassembled, unit," reasonable juries may find that the defendant sells a complete system and thus infringes. *EBS Auto. Servs. v. Ill. Tool Works, Inc.*, No. 09 CV 996, 2011 WL 4021323, at *8 (S.D. Cal. Sept. 12, 2011); see also, *St. Clair Intellectual Prop. Consultants, Inc. v. Toshiba Corp.*, No. CV 09-354, 2014 WL 4253259, at *3 (D. Del. Aug. 27, 2014) (denying defendant's motion for summary judgment on non-infringement where defendant sold "separate components that, if attached together, may infringe the patent"); *Immersion Corp. v. Sony Computer Entm't Am., Inc.*, 2005 U.S. Dist. LEXIS 4777, at *16-17 (N.D. Cal. Jan. 10, 2005) (denying JMOL where defendant advertised and sold the accused products as part of a "system," frequently highlighted compatibility between those separately sold elements, and end-users needed only perform "a few simple steps" to connect the elements, even though end-users could use combined system in non-infringing manner if they so chose).

Here, Chamberlain presented evidence that the Ryobi GDOs and the Ryobi battery are configured to fit and operate together, and that both the GDOs' packaging and a video on the Ryobi website suggest coupling the GDO and the battery. (Rhyne Tr. 407:10-408:21.) Dr. Rhyne further testified that "[This is] the way Ryobi advertises. It's part of all of the benefits and features of this system. It's important to have that battery in there to give you backup in case the AC power goes out." (*Id.* 408:18-21.) In addition, Dr. Rhyne testified that at some point (though no longer) Ryobi gave consumers a free battery when they purchased a GDO. (*Id.* 328:18-24.) From this testimony, a reasonable jury could conclude that TTI's sale of its GDO and battery comprise a complete system which infringes the '966 patent.

Finally, TTI's argument that Chamberlain failed to produce substantial evidence showing the Ryobi GDOs infringe the limitation in claims 15-18 concerning a method of power flow between a rechargeable battery, a barrier movement operator, and *"electrically powered equipment other than and physically separate or separable from the barrier movement operator"* fails no better. Dr. Rhyne testified that the Ryobi system provided power from the battery to other electrically powered equipment such as "drills, saws, and flashlights." (Rhyne Tr. 326:14;

accord id. at 327:23-328:1.) TTI's Motion for JMOL on literal infringement of the '966 patent is denied.

I. Induced Infringement of '966 patent

To win a claim for induced infringement, a plaintiff must prove specific intent and action to induce infringement. *Cleveland Clinic Found. v. True Health Diagnostics LLC*, 859 F.3d 1352, 1364 (Fed. Cir. 2017). TTI points to evidence that approximately eighty percent of Ryobi GDO purchasers do not use rechargeable, Ryobi One+ batteries in conjunction with their GDO, and that "where a product has substantial noninfringing uses, intent to induce infringement cannot be inferred even when the [alleged inducer] has actual knowledge that some users of its product may be infringing the patent." *Warner-Lambert Co. v. Apotex Corp.*, 316 F.3d 1348, 1365 (Fed. Cir. 2003). However, "liability for active inducement may be found 'where evidence goes beyond a product's characteristics or the knowledge that it may be put to infringing uses, and shows statements or actions directed to promoting infringement.'" *AstraZeneca LP v. Apotex, Inc.*, 633 F.3d 1042, 1059 (Fed. Cir. 2010) (quoting *Grokster*, 545 U.S. at 935) (citation omitted). "Evidence of active steps . . . taken to encourage direct infringement, such as advertising an infringing use or instructing how to engage in an

infringing use, show an affirmative intent that the product be used to infringe.” *Id.* (quoting *Grokster*, 545 U.S. at 936).

Here, Dr. Rhyne testified that TTI encourages consumers to use a Ryobi One+ battery with the Ryobi GDO. Specifically, Dr. Rhyne described how TTI advertised, including on the Ryobi GDO packaging, that the GDO was battery compatible and that the two should be combined. (Rhyne Tr. 328:2-330:15.) This suffices for substantial evidence from which a reasonable jury could conclude that TTI took action directed to promoting infringement. *See, AstraZeneca*, 633 F.3d at 1059. In light of that, the Court will not disturb the jury’s findings by granting JMOL.

J. Willful Infringement of the ‘966 Patent

As with the ‘275 patent, the Court declines to overturn the jury’s finding that TTI willfully infringed the ‘966 patent. The jury heard evidence that TTI investigated possible IP pitfalls and learned about the ‘966 patent as far back as 2010. (*See, e.g., Huggins Tr.* 609:23-611:10.) And yet, as described more fully below, the jury heard very little, if any, evidence of TTI taking steps to avoid infringing the ‘966 patent, even though TTI was well aware of it. (*See, infra* at Part IV.) A reasonable jury could well conclude from this evidence that TTI willfully infringed the ‘966 patent, so the Court will not grant JMOL on this ground.

K. Damages Verdict

At last, TTI challenges the jury's finding that Chamberlain is entitled to lost profits damages. One useful, but non-exclusive method to establish a patentee's entitlement to lost profits is the *Panduit* test, which requires four showings: (1) "demand for the patented product"; (2) "absence of acceptable noninfringing substitutes"; (3) "manufacturing and marketing capability to exploit the demand"; and (4) "the amount of profit that . . . would have [been] made." *Georgetown Rail Equip. Co. v. Holland L.P.*, 867 F.3d 1229, 1241 (Fed. Cir. 2017) (quoting *Panduit Corp. v. Stahl Bros. Fibre Works*, 575 F.2d 1152, 1156 (6th Cir. 1978)) (alternations in original).

TTI argues that Chamberlain could not satisfy the second *Panduit* factor because the Genie Aladdin Connect was an acceptable, noninfringing substitute available on the market during the relevant timeframe. True, the evidence at trial demonstrated that the Aladdin Connect was available, (Hansen Tr. 491:7-11), and non-infringing, (Rhyne Tr. 392:18-22), but it does not necessarily follow that it was also an "acceptable substitute." TTI puts a lot of stock in one selection from testimony given by Chamberlain's damages expert, Mr. Hansen. Shortly after Hansen acknowledged that Home Depot sold the

Aladdin Connect during the relevant timeframe, the following exchange occurred:

Q. And so at least as far as Home Depot is concerned, that system is acceptable?

A. It's - it's an alternative. It's an alternative that they make available for their customers, provide an additional choice.

Q. It's an acceptable alternative to Home Depot?

A. I would agree that it's acceptable to Home Depot. I wouldn't expect them to sell products that they don't think are acceptable at some level.

(Hansen Tr. 492:2-10.) But all Hansen says here is that Home Depot finds the Aladdin Connect to be an acceptable product to stock and sell. Absent from this selection is any indication that this product, beyond being an acceptable "alternative," is an acceptable *substitute* for the infringing Ryobi GDOs. The "[m]ere existence of a competing device does not make that device an acceptable substitute." *TWM Mfg. Co. v. Dura Corp.*, 789 F.2d 895, 901 (Fed. Cir. 1986). Further, a "product lacking the advantages of that patented can hardly be termed a substitute 'acceptable' to the customer who wants those advantages." *Id.* (quoting *Panduit Corp.*, 575 F.2d at 1162). The Aladdin Connect does not share the advantages of the infringing Ryobi GDOs and so TTI cannot hold it out as an acceptable substitute. For one, the Aladdin Connect employs a

separate, powered wall control and a door sensor, which require additional setup, providing a greater chance for "frustration and/or failure." (Sorice Tr. 182:5.) The Aladdin Connect thus lacks the out-of-the-box connectivity that, according to the record, makes the Chamberlain and Ryobi GDOs uniquely attractive to vendors and customers alike. (See, Farrah Tr. 519:4-8; accord Hansen Tr. 483:2-484:12, 497:6-498:12.)

On the basis of this evidence, a reasonable jury could find "a reasonable probability" that the Ryobi GDO sales would not have been made but for the infringement. See, *Presidio Components, Inc. v. Am. Tech. Ceramics Corp.*, 702 F.3d 1351, 1361 (Fed. Cir. 2012) (citation omitted). The jury's damages finding will thus stand.

II. TTI's Motion for a New Trial

Under Federal Rule of Civil Procedure 59, a new trial may be granted where "the verdict is against the weight of the evidence, the damages are excessive, or if for other reasons the trial was not fair to the moving party." *Mid-Am. Tablewares, Inc. v. Mogi Trading Co.*, 100 F.3d 1353, 1367 (7th Cir. 1996) (citations and internal quotations omitted). The trial court may assess the credibility of the witnesses and the comparative strength of the facts put forth at trial, but should maintain certain deference to the jury's conclusions. *Galvan v. Norberg*,

678 F.3d 581, 588 (7th Cir. 2012) (citation omitted). TTI argues that there are four, independently sufficient reasons it is entitled to a new trial: (1) the Court erroneously permitted the jury to determine the scope of the claims; (2) prejudicial and erroneous evidentiary rulings; (3) inconsistent verdicts given the Court's doctrine-of-equivalents instruction; and (4) the Court should have granted TTI's pre-trial motion to transfer venue.

A. Whether the Jury Determined the Scope of the Claims

This marks the latest instantiation of TTI's argument that the '275 patent claims require transmitting two conditions/states occurring at the same time. The heart of the matter is the meaning behind this language, from claim 1: "a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states." ('275 Patent, 8:15-17, Dkt. 1-2.) TTI points to the Court's end-of-trial statement that "there was a clear dispute between the experts on what 'defined' means" (Tr. 1391:1-3) to argue that there was thus a "fundamental dispute regarding the scope of a claim term," which must be resolved by the Court and not the jury. *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008). TTI argues the situation at bar mirrors the Federal Circuit decisions in *O2*

Micro and *NobelBiz, Inc. v. Global Connect, L.L.C.*, 701 F. App'x 994, 998 (Fed. Cir. 2017), in which the Federal Circuit vacated jury verdicts after the respective district courts permitted the jury to determine the scope of the asserted claims.

The Court does not see the parallel between those cases and this one. In both of those cases, the parties "presented a clear dispute regarding the proper scope of the claims" during pre-trial claim construction. *NobelBiz*, 701 F. App'x at 997; *cf. O2 Micro*, 521 F.3d at 1359 (noting that parties argued over at-issue construction during *Markman* hearing). In both instances, the district court failed to provide any construction for the contested element, choosing instead to allow the "plain and ordinary meaning" to prevail. *NobelBiz*, 701 F. App'x at 997; *O2 Micro*, 521 F.3d at 1361 (reciting district court's refusal to "construe claim terms that have a well-understood meaning"). The Federal Circuit took issue with both district court determinations, opining that the respective trial courts "failed to resolve the parties' dispute[s] because the parties disputed not the *meaning* of the words themselves, but the *scope* that should be encompassed by th[e] claim language." *O2 Micro*, 521 F.3d at 1361 (emphasis in original); *cf. NobelBiz*, 701 F. App'x at 997.

But the pattern present in *NobelBiz* and *O2 Micro* is not present here. TTI did not press for a construction of “defined”; rather, the parties sought a construction of the encapsulating claim language “a controller having a plurality of potential operational status conditions defined, at least in part, by a plurality of operating states.” This the Court provided, to wit: “a programmable platform (such as, for example, a microprocessor, a microcontroller, a programmable logic or gate array, or the like), that can obtain, though self-awareness or through externally developed information (e.g., from sensors), two or more potential operational status conditions defined, at least in part, by two or more operational conditions being experienced by the controller [programmable platform].” *Chamberlain*, 2017 WL 1304559, at *8 (brackets in original) (emphasis added). While it is true that TTI initially suggested in its opening *Markman* briefs that “defined by” should be should be construed as “determined by” (Dkt. 151 at 10-11, 14; Dkt. 188 at 7-8), TTI apparently abandoned that suggestion before the Court ruled. As Chamberlain observes, TTI ended up proposing a construction that mimics the “defined by” language TTI now claims spawned a grave legal error. (TTI’s Supp. Claim Constr. at 11, Dkt. 286 (proposing construction: “ . . . where each potential status condition is defined by at least two

actions that can be performed by the controller at a particular time").) Indeed, the Court went so far as to note in its *Markman* decision that "[n]either side proposes to construe 'defined,'" *Chamberlain*, 2017 WL 1304559, at *10—an observation that TTI never took issue with until after the close the trial.

Ultimately, TTI's complaint is not directed to some purported failure by the Court to define the scope of these claims. Rather, TTI is simply relitigating its already-defeated grievance that the Court's construction of claim 1 was different than what TTI urged. As described, TTI urged the Court to construe the recited status condition as defined by *actions performed* by the controller. But the Court declined to do so in light of the specification, observing that the "'operating states' recited in dependent claim 5 [cannot] be read as uniformly or as broadly" as TTI suggested. *Id.* After consulting the prosecution history and the Federal Circuit's claim construction ruling in this case, the Court construed "operating states" not as actions taken by the controller, but rather as "operational conditions being experienced by the controller." *Id.* at *13. Further, the Court made clear during this litigation that the "operational conditions being experienced" are not limited, in the Court's construction, to

only potential or only present conditions. (See, e.g., June 21, 2017, Summary Judgment Order at 4, Dkt. 397.)

In its new trial Motion, TTI basically argues that even though the parties did not propose or seek a construction of "define," the Court's construction of the encapsulating claim language did not provide sufficient clarification as to the scope of claims. (Mem. in Supp. of New Trial at 5, Dkt. 620 ("The Court provided little guidance. . . .").) This is odd. If TTI believed the Court's constructions were not sufficient, TTI should have requested further construction. Yet this TTI never did, even as discovery progressed and the parties' experts began tendering their reports. Now TTI maintains that these experts testified not to the *meaning* of the construed language, but rather to the *claim scope*, and that the Court then submitted those competing interpretations of law to the jury for deliberation.

There is problem with TTI's argument. Put simply, beyond TTI's initial, and quickly abandoned, suggestion that the Court construe "defined by" as "determined by," TTI never requested that the Court construe this now-challenged phrase, nor suggested that some allegedly lacking construction could open the door to legal error. TTI did not object while Chamberlain's experts testified—TTI would now presumably argue

inappropriately—concerning the meaning of “experienced by,” nor when the Court instructed the jury and placed this question in their hands. “[L]itigants waive their right to present new claim construction disputes if they are raised for the first time after trial.” *Broadcom Corp. v. Qualcomm Inc.*, 543 F.3d 683, 694 (Fed. Cir. 2008) (quoting *Conoco, Inc. v. Energy & Envtl. Int’l, L.C.*, 460 F.3d 1349, 1358-59 (Fed. Cir. 2006)). And that is what TTI is attempting to do. TTI leans on the Court’s close-of-trial (but pre-jury-deliberation) comment that a “clear dispute” existed between the experts on what “defined” means, but in making that remark, the Court was thinking only of the *factual* dispute between experts concerning the meaning of the claim term. If a misapprehension of this comment struck TTI like a lightning bolt and for the first time caused TTI to see some legal deficiency in the Court’s constructions, TTI should have said so. Because TTI did not, TTI has waived this claim construction argument. TTI never requested that the district court construe the complained-of term and did not offer a construction; instead, TTI waited until “after the presentation of all of the evidence to the jury [to] even suggest that claim construction might be helpful to determine the proper scope of the claimed invention.” *Eli Lilly & Company v. Aradigm Corporation*, 376 F.3d 1352, 1360 (Fed. Cir. 2004) (finding

defendant had waived its right to request claim construction). TTI's request comes too late. It has waived the argument.

B. Evidentiary Rulings.

Before trial, TTI moved *in limine* to exclude that the Patent Trial and Appeal Board ("PTAB") declined to institute *inter partes* reviews ("IPRs") of the asserted patents. The Court denied that motion, and TTI now argues that permitting this evidence to go to the jury created prejudice and juror confusion that necessitates a new trial. The PTAB relied on different claim constructions than did this Court, and TTI argues that allowing this evidence risks that the jury could have improperly substituted the PTAB decisions—or Chamberlain's characterization of those decisions—for the jury's own findings. The Court disagrees. In *Microsoft Corp. v. i4i Ltd. Partnership*, 564 U.S. 91, 111 (2011), the Supreme Court explained that improper effects on juries of introducing PTO determinations can be mitigated with a limiting instruction: "When warranted, the jury may be instructed to consider that it has heard evidence that the PTO had no opportunity to evaluate before granting the patent. When it is disputed whether the evidence presented to the jury differs from that evaluated by the PTO, the jury may be instructed to consider that question." TTI requested, and the Court gave, such an instruction in this

case: "The '275 and '966 patents were the subject of proceedings at the Patent Office called *inter partes* reviews ("IPR"). The legal standards applied by the Patent Office differ from the legal standards that you must apply. For example, Patent Office proceedings may have involved different claim constructions than this Court's claim constructions." (Jury Instruction No. 33, Dkt. 606.) Allowing the PTAB history was not an evidentiary error warranting a new trial. *Cf. Universal Elecs., Inc. v. Universal Remote Control, Inc.*, No. CV 12-00329, 2014 WL 8096334, at *7 (C.D. Cal. Apr. 21, 2014) (denying motion *in limine* seeking to exclude evidence of PTO's rejection of IPR petition).

TTI also argues that the Court erred by applying Local Patent Rule 3.4's good cause standard in barring the tardily-disclosed Kikuya reference and the Weik device. But the Federal Circuit has explained that the use of local patent rules falls within a district court's "broad power to control its docket and enforce its order." *Keranos, LLC v. Silicon Storage Tech., Inc.*, 797 F.3d 1025, 1035 (Fed. Cir. 2015) (citations omitted). TTI failed to show good cause for its late amendments to its invalidity contentions, and this Court permissibly barred the prior art. *See, United States v. Calabrese*, 572 F.3d 362, 368 (7th Cir. 2009) (district courts have "broad latitude to control

the admission of evidence"). TTI's assertion that this excluded prior art would have been relevant to the case does not change the fact of its proscriptively tardy disclosure.

C. Doctrine of Equivalents Grounds

TTI argues a new trial is warranted if the Court agrees, as TTI sets out in its JMOL Motion, that the theory of equivalents should not have gone to the jury. As described above, however, the Court does not agree, so this first argument fails.

TTI next argues that because literal infringement and doctrine-of-equivalents infringement were mutually exclusive options for the jury, the jury's finding of liability on *both* theories suggests a new-trial-worthy inconsistency. True, infringement under the doctrine of equivalents is an equitable doctrine intended to apply "in situations where there is no literal infringement[,] but liability is nevertheless appropriate." *Hormone Research Found., Inc. v. Genentech, Inc.*, 904 F.2d 1558, 1564 (Fed. Cir. 1990) (citation omitted). Still, the differences between these two theories of liability are not "fatally inconsistent," *Adv. Display Sys., Inc. v. Kent State Univ.*, No. 3-96 CV 1480, 2002 WL 1489555, at *5 (N.D. Tex. July 10, 2002) (collecting cases demonstrating the Federal Circuit's tacit approval of "the common practice of submitting patent cases under both theories"), and the jury's twin verdicts

do not mandate a new trial, *see, id.* (refusing to disturb the verdict “merely because the jury found both literal infringement and infringement under the doctrine of equivalents,” and instead reforming the verdict and entering judgment only on the literal infringement finding). Beyond this, TTI waived the objection it raises now by failing to object before the Court discharged the jury. *See, Strauss v. Stratojac Corp.*, 810 F.2d 679, 683 (7th Cir. 1987) (holding that counsel’s failure to object to alleged inconsistencies in special interrogatories before the jury had been discharged constituted waiver). The Court will not on this basis order a new trial.

D. The Court’s Refusal to Transfer Venue

Once more, TTI raises a venue argument predicated upon the Supreme Court’s recent decision in *TC Heartland LLC v. Kraft Foods Group Brands LLC*, 137 S. Ct. 1514 (2017). (*Cf.* TTI’s Mot. Trans. Venue, Dkt. 392.) But TTI’s argument is not identical to the one it advanced in its pretrial motion to transfer venue; this new version has a twist. At issue here is the patent venue statute, 28 U.S.C. § 1400(b), and the recently evolved case law contrasting its scope with that of the general venue statute, 28 U.S.C. § 1391(c). In 1988 and then 2011, Congress amended § 1391 to make it broader, creating venue not only for corporate defendants incorporated within a court’s forum, but also for

corporate defendants subject to that court's personal jurisdiction. *See, In re Micro Tech., Inc.*, 875 F.3d 1091, 1098-99 (Fed. Cir. 2017). Courts then began applying the Congressionally-broadened scope of § 1391 to patent cases governed by § 1400, even though Congress had not similarly amended the patent-specific statute. *See, e.g., VE Holding Corp. v. Johnson Gas Appliance Co.*, 917 F.2d 1574, 1582 (Fed. Cir. 1990) (holding that the expansion of § 1391 applied to § 1400 as well), *abrogated by TC Heartland*, 137 S. Ct. 1514. With *TC Heartland*, the Supreme Court put a stop to this. The Court held that under the patent venue statute, a corporation only "resides" in its state of incorporation—and nowhere else. *TC Heartland*, 137 S. Ct. at 1517.

This ruling raised eyebrows for parties like TTI, who by the time of the *TC Heartland* decision were deeply enmeshed in patent litigation in a forum where none of the domestic, corporate defendants were incorporated. A month after the *TC Heartland* opinion came out and two months before this trial was set to begin, TTI moved this Court to transfer the case to South Carolina. The Court denied that motion, finding that because *TC Heartland* did not represent a change in the law, TTI had waived objections to venue by (1) failing to contest venue in its answer and (2) twice admitting that venue was proper here.

Chamberlain, 2017 WL 3205772, at *2 (citing *Cobalt Boats, LLC v. Sea Ray Boats, Inc.*, 254 F. Supp. 3d 836, 840 (E.D. Va. 2017)). The Court also remarked upon the extensive judicial resources already expended on this matter that would need to be spent once more if the case were transferred. *Id.*

That might have been the end of it. But since the Court's ruling, the Federal Circuit published *In re Micron Technology, Inc.*, 875 F.3d 1091, 1093 (Fed. Cir. 2017) in which the court of appeals made clear that *TC Heartland* changed the controlling law and rendered the waiver of venue objections inapplicable—at least in certain instances. Now, TTI argues its venue objections cannot be stripped away by waiver given those objections were not even available under then-controlling authority. But TTI ignores half of *Micron's* holding, and that other half undermines TTI's position. Simply put, *Micron* drew a line between two classes of waiver: waiver under Federal Rule of Civil Procedure 12(g)(2) and (h)(1)(A), and waiver under the "less bright-line, more discretionary framework" extant in a trial court's "inherent powers." *Id.* at 1094, 1100 (citation omitted). *Micron* thus held that district courts have authority to find forfeiture of a venue objection separate and apart from a Rule 12 shortcoming. *Id.* at 1101; accord *Neirbo Co. v. Bethlehem Shipbuilding Corp.*, 308 U.S. 165, 168 (1939) ("Being a

privilege, [venue] may be lost. It may be lost by failure to assert it seasonably, by formal submission in a cause, or by submission through conduct.").

Finding waiver is appropriate here. By the time the Supreme Court announced *TC Heartland*, the Chamberlain/TTI trial date was only three months away. Still, TTI waited another month before filing its *TC Heartland* motion to transfer. (Dkt. 392.) This unnecessary delay is problematic for two reasons. First, with the trial date fast approaching, the parties continued to burn resources in discovery and pre-trial motion practice, and the Court expended its own energies mediating these disputes. The parties exchanged discovery, submitted expert reports, answered one another's claims, and attended two in-court hearings. Second, TTI's counsel chose not to delay in raising a *TC Heartland* argument in another matter. During the month-long interregnum in the instant litigation, TTI's counsel moved—a mere eight days after the Supreme Court published *TC Heartland*—to transfer venue in another case pending in the Eastern District of Virginia. See, *Cobalt Boats*, 254 F. Supp. 3d at 839-40. The Virginia district court denied that motion, *id.*, and counsel sought a writ of mandamus from the Federal Circuit, which was denied, *In re Sea Ray Boats, Inc.*, 695 F. App'x 543 (Fed. Cir. 2017). Only then did counsel file

the *TC Heartland* motion to transfer venue in the instant case. Chamberlain suggests this behavior has the hallmarks of a “tactical wait-and-see” approach which enabled TTI’s counsel to reshape their *TC Heartland* argument as necessary in the instant case depending on the relative success of their first attempt in Virginia. The Federal Circuit took care to suggest the potentially problematic nature of such gamesmanship: “We also note a scenario that presents at least an obvious starting point for a claim of forfeiture, whether based on timeliness or consent or distinct grounds: a defendant’s tactical wait-and-see bypassing of an opportunity to declare a desire for a different forum, where the course of proceedings might well have been altered by such a declaration.” *Micron*, 875 F.3d at 1102. And finally, though the Federal Circuit chose not to provide a specific framework for when courts may find waiver by means other than noncompliance with Rule 12, the court of appeals approvingly recited its past denials of mandamus “in several cases involving venue objections based on *TC Heartland* that were presented close to trial.” *Id.* at 1102. One of the recounted denials was the one *in this case*. *Id.* at 1102 n.4 (citing *In re Techtronic Indus. N. Am., Inc.*, No. 17-125, 2017 WL 4685333, at *1 (Fed. Cir. July 25, 2017) (denying TTI writ of mandamus)). The framework for finding such waivers is not yet defined, but

two things are clear: One, this Court has the inherent power to find TTI waived its venue objection, and two, because, with only two months to go before trial, TTI engaged in the wait-and-see tactics highlighted by the Federal Circuit, the Court does not abuse its discretion by finding waiver here. TTI's Motion for a new trial is denied to the extent it relies upon *TC Heartland* and TTI's efforts to transfer venue.

III. Chamberlain's Motion for a Permanent Injunction

To obtain a permanent injunction, a plaintiff must demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006) (citations omitted). Under Federal Rule of Civil Procedure 65(d), an injunction must prohibit "only those acts sought to be restrained," namely, "infringement of the patent by the devices adjudged to infringe and infringement by devices no more than colorably different therefrom." *Black & Decker Inc. v. Robert Bosch Tool Corp.*, No. 04 C 7955, 2006 WL 3446144, at *2 (N.D.

Ill. Nov. 29, 2006) (quoting *Int'l Rectifier Corp. v. IXYS Corp.*, 383 F.3d 1312, 1317 (Fed. Cir. 2004)).

A. Irreparable Injury and Remedies Available at Law

Much of TTI's rebuttal to Chamberlain's sought-after injunctive relief turns upon TTI's promise that it has abandoned the production of infringing GDOs and has pulled all remaining units from Home Depot's shelves. Although TTI intends to sell off its remaining stock of infringing units, TTI claims it will soon sell only non-infringing GDOs. But TTI's "cessation of the production and sales of the [GDOs] is not-in and of itself-a sufficient reason to deny a permanent injunction. Instead, there must also be some persuasive evidence that further infringement will not take place." *Black & Decker*, 2006 WL 3446144, at *4 (citing *W.L. Gore & Assocs. v. Garlock, Inc.*, 842 F.2d 1275, 1282 (Fed. Cir. 1988), *abrogated on other grounds as recognized in Zoltek Corp. v. United States*, 672 F.3d 1309, 1319 (Fed. Cir. 2012)). That is not the case here, where TTI has both admitted its intention to continue selling infringing GDOs (at least in the short-term) and nowhere suggests it is bound to its promise to cease quickly that sales activity. *Cf. id.* (granting permanent injunction where plaintiff set forth evidence that future infringement "might" take place).

So long as TTI continues to sell infringing GDOs, Chamberlain will suffer injury without an available, adequate remedy. Chamberlain has and will continue to suffer harm to its market share, especially given the relatively inelastic nature of GDOs. The evidence bears this out: From April 2016-April 2017, TTI sold more than 62,000 GDOs, about a quarter of Chamberlain's total sales over a two year period, April 2015-April 2017. (Hanson Tr. 438:5-439:2.) TTI was not a GDO-market participant prior to its '275-infringing sales. "Direct competition in the same market is certainly one factor suggesting strongly the potential for irreparable harm without enforcement of the right to exclude." *Presidio Components, Inc. v. Am. Tech. Ceramics Corp.*, 702 F.3d 1351, 1363 (Fed. Cir. 2012) (citing *Broadcom Corp. v. Qualcomm Inc.*, 543 F.3d 683, 703 (Fed. Cir. 2008)); cf. *Douglas Dynamics, LLC v. Buyers Prod. Co.*, 717 F.3d 1336, 1338, 1345 (Fed. Cir. 2013) (reversing district court's denial of permanent injunction where infringer's market share grew from 0% to 5% over three years of infringement).

Further, continuing infringing sales may cause Chamberlain to suffer "ecosystem" effects, whereby Ryobi GDO purchasers will continue to buy Ryobi products and recommend them to others. *Apple Inc. v. Samsung Elecs. Co.*, 809 F.3d 633, 641 (Fed. Cir.

2015); accord Hansen Tr. 462:15-17 (describing purchasers of one Chamberlain product more likely to purchase further Chamberlain products and recommend same). These derivative sales are significant here, where the participating GDO sellers seek to profit from sales of GDO accessories. (See, A. Ely Dep. Designations 154:4-154:12, Dkt. 611-2 (describing Ryobi's intention that customers will buy Ryobi-branded accessories that "go with" their Ryobi GDOs); TTI Internal Email at 2, Dkt. 623-6 ("You must make money in the accessories!!").) On this record, "mere damages will not compensate for a competitor's increasing share of the market." *Douglas Dynamics*, 717 F.3d at 1345. Under such circumstances, a patent owner's right to exclude "cannot be compensated through monetary damages," especially "because it is impossible to determine the portions of the market the patent owner would have secured but for the infringer or how much damage was done to the patent owner's brand recognition or good will due to the infringement." *z4 Tech., Inc. v. Microsoft Corp.*, 434 F. Supp. 2d 437, 441 (E.D. Tex. 2006).

Finally, Chamberlain's unwillingness to license the patent also weighs in favor of finding irreparable injury. See, *Presidio Components*, 702 F.3d at 1363; cf. *Acumed LLC v. Stryker Corp.*, 551 F.3d 1323, 1328 (Fed. Cir. 2008) ("[That] a patentee

has previously chosen to license the patent may indicate that a reasonable royalty does compensate for an infringement"); Hansen Tr. 459:13-460:24 (explaining that Chamberlain has not licensed the asserted patents); Tate Tr. 1265:2-1266:1 (same).

Beyond showing irreparable harm and the absence of an adequate remedy, Chamberlain must also show that the harm bears a causal nexus to the infringing activity. *Apple Inc. v. Samsung Elecs. Co.*, 809 F.3d 633, 640 (Fed. Cir. 2015). This showing requires only that the patented features "were related to infringement and were important to customers." *Id.* at 644. As the Court previously observed in its preliminary injunction order, both companies "target[] customers who want 'connected' GDOs, *i.e.*, those connected by the controller to smart phones through wireless transmissions." (Dkt. 107 at 15.) At trial, Chamberlain produced evidence demonstrating that the status monitoring and data transmission disclosed by the '275 patent are important to consumers. (Hansen Tr. 443:15-18 ("Q: Does TTI believe that the capability of the Ryobi garage door opener to transmit status updates is an important feature for driving sales? A: Yes."); A. Ely Dep. Designations 232:3-10, Dkt. 611-2 (agreeing that "[t]he ability or the function of a Ryobi garage door opener that allows a customer to monitor the status of the garage door, that's something that would incentivize customers

to buy the Ryobi product.”).) This suffices to show the required nexus. *Genband US LLC v. Metaswitch Networks, Corp.*, 861 F.3d 1378, 1382 (Fed. Cir. 2017) (stating that patentee must show that the patent features are “a driver” for demand as opposed to “the driver” (emphasis in original)).

B. Balance of Hardships

The balance weighs in favor of granting the injunction. TTI is relatively new to the GDO market, and TTI’s damages expert testified that TTI has not earned any gross or operating profit from the sale of the Ryobi GDO as of July 2017. (Corrected Supp. Expert Rpt. at 49, Dkt. 468-2.) Aside from their GDO sales, TTI maintains a multibillion dollar business. In contrast, GDO sales make up the core of Chamberlain’s business. (Sept. 15, 2016, Mem. Op. and Order at 17, Dkt. 107.) Beyond this, TTI is “not entitled to continue infringing simply because it successfully exploited its infringement.” *i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d 831, 863 (Fed. Cir. 2010), *aff’d*, 564 U.S. 91 (2011) (citations omitted). The balance of hardships favors injunction.

C. Public Interest

“In general, public policy favors the enforcement of patent rights.” *Black & Decker*, 2006 WL 3446144, at *5 (citing *Abbott Labs. v. Andrx Pharms., Inc.*, 452 F.3d 1331, 1348 (Fed. Cir.

2006); *PPG Indus., Inc. v. Guardian Indus. Corp.*, 75 F.3d 1558, 1567 (Fed. Cir. 1996)). The jury in this case found that TTI willfully infringed the '275 patent. Hence, it will serve the public interest to protect Chamberlain's property rights against further infringement. See, *Apple Inc. v. Samsung Elecs. Co.*, 809 F.3d 633, 647 (Fed. Cir. 2015).

D. Breadth of the Injunction

The Court finds a permanent injunction is appropriate, and now permanently enjoins TTI from infringing or inducing infringement of claims 1, 5, or 15 of the '275 patent by making, using, selling, or offering to sell in the United States, or importing into the United States the Ryobi GD200, GD200A, and any device no more than colorably different therefrom, until the expiration of the '275 patent, including any patent term adjustments and extensions. Beyond this, Chamberlain also requests a Court-approval condition, under which TTI cannot introduce any WiFi-capable GDO without prior permission from the Court. TTI responds that this proposed condition is overbroad and impermissibly deters legitimate design-around efforts. See, *TiVo, Inc. v. EchoStar Corp.*, 646 F.3d 869, 883 (Fed. Cir. 2011) ("[L]egitimate design-around efforts should always be encouraged as a path to spur further innovation."). TTI instead proposes "to voluntarily provide [Chamberlain's] outside counsel with

seven days' notice of its intended launch date of any new GDO at The Home Depot," and to meet and confer regarding the same. Finally, Chamberlain replies that if the Court is inclined to impose such a notice condition as TTI suggests, the notice period should be two months, not seven days. To any extent, the Court will not impose any of these additional conditions. TTI is enjoined from further infringing the '275 patent as set forth above; if TTI disregards that mandate, TTI will likely owe Chamberlain still further damages and possibly find itself sanctioned by the Court. This is specific enough under Federal Rule of Civil Procedure 65 and should serve as an appropriate disincentive for further infringing activity. No more is needed.

IV. Chamberlain's Motion for Enhanced Damages

When there is a finding of infringement, the Court may increase the damages up to three times the amount found or assessed. 35 U.S.C. § 284. "The subjective willfulness of a patent infringer, intentional or knowing, may warrant enhanced damages, without regard to whether his infringement was objectively reckless." *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1933. Behavior deserving of enhanced damages is "egregious," or "willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or-indeed-

characteristic of a pirate.” *Id.* at 1932. To prevail on a motion seeking enhanced damages, a patent-owner must show enhancement is warranted by a preponderance of the evidence. *Id.* at 1934.

Though not a required part of the analysis, the nine so-called *Read* factors provide useful guideposts for the Court’s consideration. *Presidio Components, Inc. v. Am. Tech. Ceramics Corp.*, 875 F.3d 1369, 1382 (Fed. Cir. 2017) (citing *Read Corp. v. Portec, Inc.*, 970 F.2d 816 (Fed Cir. 1992)); accord *Styrker Corp. v. Zimmer, Inc.*, No. 10 cv 1223, 2017 WL 4286412, at *3 (W.D. Mich. July 12, 2017) (applying *Read* factors). Those factors are:

- (1) whether the infringer deliberately copied the ideas or design of another;
- (2) whether the infringer, when he knew of the other’s patent protection, investigated the patent and formed a good-faith belief that it was invalid or that it was not infringed;
- (3) the infringer’s behavior as a party to the litigation;
- (4) the infringer’s size and financial condition;
- (5) the closeness of the case;
- (6) the duration of the misconduct;
- (7) the remedial action by the infringer;
- (8) the infringer’s motivation for harm; and
- (9) whether the infringer attempted to conceal its misconduct.

See, *Read Corp.*, 970 F.2d at 827. The Court need not find that every *Read* factor favors enhancement to order it. See, e.g., *Arctic Cat Inc. v. Bombardier Recreational Prod., Inc.*, 198 F.

Supp. 3d 1343, 1354 (S.D. Fla. 2016) (awarding enhanced damages even where not all factors favored enhancement), *aff'd*, 876 F.3d 1350 (Fed. Cir. 2017).

Here, Chamberlain says TTI acted egregiously. TTI, of course, disputes the characterization, claiming instead that this litigation arose from a simple business dispute and that its attorneys permissibly litigated with zeal. Before the Court takes up the *Read* factors, it notes the relevant background: First, during the time that TTI developed the Ryobi GDO 200, TTI was acutely aware that the enterprise could trespass on IP rights if TTI were not careful. TTI's primary customer, Home Depot, acknowledged as much (Dkt. 642-5 at 2 (Trial Ex. No. PTX-188) (describing IP research as "the main area of concern" with the Ryobi GDO development)), and TTI's internal documents described possible IP problems as high risk, meaning "[t]he project is going to be adversely impacted by th[e] issue if it is not addressed. Multiple risk reduction plans are necessary." (Dkt. 642-7 at 35, 37 (Trial Ex. No. PTX-67).)

But TTI's awareness of possible IP issues was not limited to the abstract. Several events put TTI on notice of both the '275 and the '966 patents specifically. As to the former: TTI engineers acquired Chamberlain GDOs which practice the '275 patent; these engineers disassembled the devices and used the

internal parts to make a demo of the Ryobi device that TTI presented to Home Depot. (Huggins Tr. 601:17-603:2.) At the time the TTI engineers took apart Chamberlain's GDO, it was marked, in a place plainly visible upon deconstructing the device, as practicing the '275 patent. (Huggins Tr. 605:9-606:12.) Despite admitting both the visibility of this marking and the fact that TTI took apart the Chamberlain unit (see, *id.*), TTI's employees testified that they never saw the '275 patent marking. (TTI's Resp. to Mot. for Enhanced Damages at 14, Dkt. 645 (collecting citations to trial transcript).) This is not the only example of TTI being put on notice of the '275 patent, however. During the Ryobi GDO development phase, TTI hired a consultant who had previously worked at Overhead Door, another market competitor. This consultant had been aware of the '275 patent while at Overhead Door and advised TTI that it would need to be careful of the intellectual property rights around "wireless devices and [GDOs]." (Carlson Dep. Designations 37:13-15, 37:17-38:8, 56:4-7, 70:7-11, Dkt. 610-1.) TTI was also on notice during this time—and indeed, long before—of the '966 patent. TTI filed a PCT application back in 2009, and international search reports indicated that it faced novelty and obviousness problems in light of the '966 patent. (Dkt. 623-9 at 27 (Trial Ex. No. PTX-630).) TTI learned of the patent

again in February 2015 during GDO development. (TTI's Fifth Supp. Answers to Chamberlain's First Set of Interrogatories at 9, Dkt. 624-9.)

A. Read Factors

Deliberate Copying. Here, "the evidence show[s] that [TTI] was aware of [Chamberlain's GDO] and intended to develop a product with similar capabilities." *Polara Eng'g, Inc. v. Campbell Co.*, 237 F. Supp. 3d 956, 992 (C.D. Cal. 2017) (finding circumstantial evidence of deliberate copying "nonetheless compelling"). Further, TTI's purported attempts to design around the '275 patent only came six months after Chamberlain filed this suit (see, Notice of Redesign, Dkt. 203), and even then the Court judged that redesign to be not colorably different, *Chamberlain*, 2017 WL 368027, at *3-4. This conduct suggests faith worse than the defendant's in *Westvaco Corp. v. International Paper Co.*, 991 F.2d 735 (Fed. Cir. 1993), where the defendant took pains to design around an existing patent in the first instance. *Id.* at 738-40, 746 (reversing damages enhancement). This factor weighs in favor of enhanced damages.

Good Faith Belief of Invalidity of Noninfringement Predicated upon Investigation of Patent. As set forth above, TTI not only knew that development in the wireless/WiFi-capable GDO space could raise IP problems, TTI also knew of '275 and the

'966 patents specifically. And yet, despite being aware of the risk of infringement, there is no suggestion that TTI did anything to avoid colliding with it head-on. *Cf. Apple Inc. v. Samsung Elecs. Co.*, 258 F. Supp. 3d 1013, 1032 (N.D. Cal. 2017) ("The absence of evidence of an adequate investigation and of Samsung's reliance on its defenses weighs in favor of enhanced damages."). This factor weighs in favor of enhanced damages.

TTI's Litigation Behavior. Both parties make much of this factor and spend many pages contesting whether and when TTI misbehaved in litigation. The Court will not nitpick each of these contests now, though it will note one moment in which TTI behaved less than admirably. Chamberlain moved for a preliminary injunction and the Court granted it on September 15, 2016. (Mem. Op. and Order, Dkt. 104.) But the Court did not actually enter that injunction until five days later. (Order, Dkt. 111.) In that brief interim, TTI sold off approximately 6,000 of the original GD200s to Home Depot. (See, Ex. J to Enhanced Damages Mot., Dkt. 624-11.) TTI thus unloaded (since-determined-to-be) infringing stock despite the Court's announcement that it intended to halt all such sales imminently. That the Federal Circuit later vacated the preliminary injunction is no defense; possible *vacatur* on appeal is no

excuse for disregarding a court order. This factor also weighs in favor of enhanced damages.

TTI's Size and Financial Condition. TTI is a multibillion dollar company with the means to absorb \$11.4 million in treble damages. See, *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1371 (Fed. Cir. 2004) (affirming award of enhanced damages based in part on fact that defendant "is a large company with extensive financial means"). This factor weighs in favor of—or at least does not weigh against—enhanced damages.

Closeness of the Case. This case was not close. TTI lost on every issue at trial after less than two hours of jury deliberation. See, *SRI Int'l, Inc. v. Cisco Sys., Inc.*, 254 F. Supp. 3d 680, 723 (D. Del. 2017) (enhancing damages in part because defendants "lost on all issues during summary judgment and trial"); cf. *Engineered Prod. Co. v. Donaldson Co.*, 147 F. App'x 979, 992 (Fed. Cir. 2005) (affirming award of treble damages where "this was not a close case of infringement, as evidenced by the strong showing of willful infringement"). The fact that some of TTI's positions had merit does not turn the tables. See, *Styrker Corp.*, 2017 WL 4286412, at *3 ("[T]he objective reasonableness the Federal Circuit found for a handful of [defendant's] litigation positions in no way detracts from

the lopsided victory [plaintiff] garnered on the core issues[.]"). This factor weighs in favor of enhanced damages.

Duration of Misconduct. TTI's infringing behavior has spanned the whole of TTI's participation in the GDO marketplace to date. (TTI's Resp. to Enhanced Damages Mot. at 13 n.10, Dkt. 645 (admitting that TTI continues to sell infringing Ryobi GDOs to date, and adding that TTI intends to account for said sales and compensate Chamberlain accordingly).) This factor weighs in favor of enhanced damages.

TTI's Remedial Actions. "Courts have concluded that continuing to sell the infringing products after notice of infringement and during the course of litigation supports enhancement." *Polara*, 237 F. Supp. 3d at 993 (citation omitted). Here, TTI has continued to sell its GDOs, although directly, and not through Home Depot, since the return of the jury verdict. (See, M. Preus Decl. ¶ 9, Dkt. 645-1.) This adds to TTI's infringement instead of reducing it. As such, this factor weighs in favor of enhanced damages.

TTI's Motivation for Harm. The evidence suggests that TTI recognized the peril of infringement and yet moved forward with its GD200s anyway. TTI's actions during the development and release of both the GD200 and the GD200A suggest that TTI wanted to enter the market quickly and, if possible, displace

Chamberlain's hold on it. This preference for risk of infringement over the more labor-intensive creation of a non-infringing design weighs in favor of enhancing damages. *Funai Elec. Co., Ltd. v. Daewoo Elecs. Corp.*, 593 F. Supp. 2d 1088, 1116-17 (N.D. Cal. 2009) (agreeing that "where, as here, the infringer engages in infringing conduct to gain an edge over the patentee in a competitive market, this factor favors an award of enhanced damages.")

Attempts by TTI to Conceal Its Misconduct. First, as described above, TTI evaded the preliminary injunction by unloading its GDOs to Home Depot after the Court's opinion foretelling the injunction against the same. Second, TTI contacted Home Depot in October 2016, a month after the Court entered the preliminary injunction but three months before the Federal Circuit vacated it, offering to sell Ryobi GDOs despite the Court's command not to do so. (Cameron Dep. Designations 209:21-210:25, Dkt. 625-10.) This factor weighs in favor of enhanced damages. See, 35 U.S.C. § 271(a) (offering to sell a patented invention constitutes infringement); *R-BOC Representatives, Inc. v. Minemyer*, 233 F. Supp. 3d 647, 689 (N.D. Ill. 2017) (ordering treble damages where defendants not only failed to follow the injunction, but "silently avoided it").

In sum, considering the jury's verdict and the *Read* factors, the Court finds that Chamberlain has shown by a preponderance of the evidence that enhanced damages are appropriate here. *Halo Elecs.*, 136 S. Ct. at 1934. The Court accordingly orders treble damages.

**V. Chamberlain's Motion for Prejudgment Interest
and Supplemental Damages**

A. Prejudgment Interest

Given Congress' overriding purpose of affording patent owners complete compensation, prejudgment interest should ordinarily be awarded in patent cases. *Gen. Motors Corp. v. Devex Corp.*, 461 U.S. 648, 655 (1983) (citing 35 U.S.C. § 284). "Generally, prejudgment interest should be awarded from the date of infringement to the date of judgment." *Nickson Indus., Inc. v. Rol Mfg. Co.*, 847 F.2d 795, 800 (Fed. Cir. 1988) (citations omitted). Both the rate and whether the interest should be compounded "are matters left largely to the discretion of the district court." *Bio-Rad Labs., Inc. v. Nicolet Instrument Corp.*, 807 F.2d 964, 969 (Fed. Cir. 1986) (citations omitted).

The parties dispute which rate the Court should apply. Chamberlain argues for the prime rate (between 3.5 and 4.25% in this case), and TTI argues for the treasury bill rate (approximately 0.62%). "The prime rate of interest is the

benchmark rate for the banks' most credit-worthy customers, but even blue-chip debtors are more likely to default than is the United States government, so the prime rate exceeds the T-Bill rate . . . [b]ecause the prime rate includes some compensation for the risk of non-payment. . . ." *Koopmans v. Farm Credit Servs. of Mid-America, ACA*, 102 F.3d 874, 875 (7th Cir. 1996) (citation omitted). As Judge Amy St. Eve explained in *Black & Decker Inc. v. Robert Bosch Tool Corp.*, No. 04 C 7955, 2006 WL 3359349 (N.D. Ill. Nov. 20, 2006), *vacated on other grounds*, 260 F. App'x 284 (Fed. Cir. 2008), "if the Court were to use the prime rate, [the plaintiff] would be compensated for the risk of non-repayment—a risk that does not exist under the circumstances. Here, the T-Bill rate is more appropriate because it will adequately compensate [the Plaintiff] for its 'foregone use of the money between the time of infringement and the date of the judgment' without additional compensation." *Id.* at *11 (citing *Laitram Corp. v. NEC Corp.*, 115 F.3d 947, 955 (Fed. Cir. 1997) (affirming district court's award of interest at T-Bill rate to "adequately compensate plaintiff for the lost use of its royalties"))). Further, "[i]n determining the appropriate rate, courts have considered whether, during the period of infringement, the plaintiff 'borrowed money at a higher rate, what that rate was, or [whether] there was a causal

connection between any borrowing and the loss of the use of the money awarded as a result of [the defendant's] infringement.'" *Apple, Inc. v. Samsung Elecs. Co.*, 67 F. Supp. 3d 1100, 1121-22 (N.D. Cal. 2014), *aff'd*, 816 F.3d 788 (Fed. Cir. 2016), *vacated in part and aff'd in part on reh'g en banc*, 839 F.3d 1034 (Fed. Cir.); *accord Laitram*, 115 F.3d at 955 (upholding district court's decision to use the treasury bill rate in case where district court found no evidence of "a causal connection between any borrowing and the loss of the use of the money awarded as a result of the infringement."). Chamberlain made no such showing here. The Court agrees the T-Bill rate is appropriate.

Next, courts "have recognized that compounding is necessary to fully compensate the patentee." *Sealant Sys. Int'l, Inc. v. TEK Global S.R.L.*, No. 11 CV 00774, 2014 WL 1008183, at *6 (N.D. Cal. Mar. 7, 2014) (citation omitted), *aff'd in part, vacated in part, rev'd in part*, 616 F. App'x 987 (Fed. Cir. 2015). "Because a patentee's damages include the foregone use of money, compounding is needed to account for the time value of money." *Id.* (citation omitted). Thus, "courts have approved annual compounding and even daily compounding." *Id.* (citation omitted). TTI has not articulated any objection to compounding. The Court believes that monthly compounding, as Chamberlain requests, is appropriate here.

B. Supplemental Damages

Chamberlain asks the Court to amend the judgment pursuant to Federal Rule of Civil Procedure 59(e) to account for new information not available at trial concerning TTI's sales of infringing products between May 1, 2017 and September 5, 2017. Courts may account for such pre-verdict sales not presented at trial. *See, e.g., Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1212 (Fed. Cir. 2010) (affirming supplemental damages for infringing sales never considered by the jury); accord 35 U.S.C. § 284 ("When damages are not found by a jury, the court shall assess them"). These supplemental damages derive from the same three sources as the original damages determined by the jury: (1) lost profits for sales of infringing GDOs; (2) future accessories for those infringing GDOs; (3) royalties for sales of infringing GDOs not accounted for in Chamberlain's lost profits, as determined by Chamberlain's market share.

TTI contends that none of these supplemental damages is appropriate because TTI has begun and intends to complete buying back from Home Depot all remaining stock of infringing Ryobi GDOs. But TTI cites no legal authority explaining why its repurchasing plan erases the harm done to Chamberlain or annuls damages TTI would otherwise owe. As Chamberlain correctly notes, Chamberlain suffered lost profits at the time TTI made

the initial, infringing sales to Home Depot; a later-implemented buy-back plan does not undo that harm. Beyond this, TTI states that its intent in repurchasing the infringing GDOs is simply to sell those GDOs directly to consumers, rather than use Home Depot as a middle man. Chamberlain is entitled to supplemental damages for both lost profits and royalties for TTI's infringing sales occurring from May 1, 2017 to September 5, 2017.

However, the calculus might not be so simple for the supplemental damages for lost future sales of GDO accessories. By using an "accessory attach rate" of 0.75, Chamberlain's damages expert concluded that Chamberlain "lost or is likely to lose in the future sales of 11,442 accessory units associated with the lost GDOs, resulting in additional lost profits of \$134,496 for accessories." (J. Hansen Decl. ¶ 2, Dkt. 630-1.) So unlike the supplemental damages for lost profits or royalties associated with GDO sales, these accessory-sales damages are predicated upon downstream purchases by consumers. Thus, to the extent TTI's buy-back strategy removes infringing Ryobi GDOs from the market, Chamberlain may not recover for now-prevented, would-have-been purchases of accessories. But again, TTI has announced its intention to re-sell the repurchased GDOs directly to consumers. If TTI has already repurchased and resold all of Home Depot's remaining stock, this digression is moot and

Chamberlain is entitled to supplemental damages for accessory lost profits. (See TTI's Opp. to Enhanced Damages at 13 n.10, Dkt. 645 (acknowledging TTI's intent to sell its remaining inventory of infringing Ryobi GDOs and predicting selling out all on-hand stock within six months of October 18, 2017).) But as discussed above, the Court now grants Chamberlain's Motion for a permanent injunction. As such, any repurchased product on-hand at TTI may not be sold to future consumers. Thus, it is only that stock—stock which no consumer will ever use—that may decrease the supplemental accessory damages TTI must pay.

Given the above, the Court grants Chamberlain's Motion for supplemental damages in part and awards the following:

1. Prejudgment interest of \$42,347.00, calculated by using the 52-week treasury bill rate, compounded monthly;

2. For the '275 patent, \$900,793.00 in GDO lost profits; \$54,672.00 in royalties; and \$134,496.00 in accessory lost profits, unless TTI has some repurchased GDO stock still on hand, in which case TTI may move the Court within fourteen days to reduce the accessory lost profits damages accordingly;

3. For the '966 patent, \$18,224.00 in royalties.

VI. Chamberlain's Motion for Attorneys' Fees

A. Whether to Award Fees

"The court in exceptional cases may award reasonable attorney fees to the prevailing party." 35 U.S.C. § 285. In 2014, the Supreme Court clarified the standard for finding a case "exceptional": "[A]n 'exceptional' case is simply one that stands out from others with respect to the substantive strength of a party's litigating position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated. District courts may determine whether a case is 'exceptional' in the case-by-case exercise of their discretion, considering the totality of the circumstances." *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1756 (2014). In determining whether to award attorneys' fees, the trial judge considers "the closeness of the case, the tactics of counsel, the conduct of the parties, and any other factors that may contribute to a fair allocation of the burdens of litigation as between winner and loser." *S.C. Johnson & Son, Inc. v. Carter-Wallace, Inc.*, 781 F.2d 198, 201 (Fed. Cir. 1986). "The determination whether a case is 'exceptional' is indisputably committed to the discretion of the district court." *Lumen View Tech. LLC v. Findthebest.com, Inc.*, 811 F.3d 479, 482 (Fed. Cir. 2016) (citing *Highmark Inc. v. Allcare Health Mgmt. Sys., Inc.*, 134 S. Ct. 1744, 1748 (2014)).

Before *Octane Fitness*, the Federal Circuit remarked that “[w]hile a finding of willful infringement does not require a finding that a case is exceptional, our cases uniformly indicate that the willfulness of the infringement by the accused infringer may be a sufficient basis in a particular case for finding the case exceptional for purposes of awarding attorney fees to the prevailing patent owner.” *Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1340 (Fed. Cir. 2004) (quoting *Avia Group Int’l, Inc. v. L.A. Gear Cal., Inc.*, 853 F.2d 1557, 1567 (Fed. Cir. 1988)) (citation, alternations, and quotation marks omitted). The Federal Circuit has had the opportunity, post-*Octane Fitness*, to do away with that formulation and yet has declined to do so. In *Stryker Corp. v. Zimmer, Inc.*, 837 F.3d 1268, 1279 (Fed. Cir. 2016), the court of appeals noted only that post-*Octane Fitness*, a willfulness finding “does not necessarily” make a case exceptional. That observation seemingly leaves open the possibility that, under the *Octane* totality-of-the-circumstances test, a willfulness finding alone may suffice for the “exceptional” designation. See, *Stryker Corp. v. Zimmer, Inc.*, No. 10 CV 1223, 2017 WL 4286412, at *2 (W.D. Mich. July 12, 2017) (holding that the jury’s “subjective willfulness” finding was sufficient for an “exceptional” case finding under the rigid, pre-*Octane Fitness* framework, and is it

"certainly sufficient for such a finding under the more flexible, totality-of-the-circumstances standard enunciated by *Octane Fitness*"; see also, *Rawcar Grp., LLC v. Grace Med., Inc.*, No. 13 CV 1105, 2014 WL 12577590, at *3 (S.D. Cal. Dec. 16, 2014) (approvingly reciting, after *Octane Fitness*, that a willfulness finding may be a sufficient basis for finding a case "exceptional"); *Comaper Corp. v. Antec, Inc.*, No. CV 05-1103, 2014 WL 12613394, at *1 (E.D. Pa. June 11, 2014) (same); but cf. *Arthrex, Inc. v. Smith & Nephew, Inc.*, No. 15 CV 01047, 2017 WL 365239, at *1 (E.D. Tex. Jan. 25, 2017) ("Since *Octane Fitness*, the Federal Circuit has acknowledged that a finding a [sic] willfulness does not necessarily make a case exceptional.").

Here, the jury found TTI willfully infringed both asserted patents. And, though reliance on this finding alone still appears permissible under controlling authority, the Court's finding that this case is exceptional is bolstered by the conduct of TTI and its counsel, as described above. (See, *supra* at Part IV.A.) Most prominent in the Court's eyes are TTI's efforts to circumvent the preliminary injunction. (See, *id.*) Under the totality of the circumstances, the Court believes an exercise of its discretion is appropriate here: It finds this

case exceptional and accordingly awards Chamberlain reasonable attorneys' fees. 35 U.S.C. § 285.

B. What Fees to Award

Chamberlain and TTI tussle over whether TTI's objections to the sought-after fees were untimely under Local Rule 54.3 and thus waived. The shortest version of the dispute is this: The Court required the parties to file their Joint Statement by November 21, 2017. Chamberlain produced 562 pages of invoices to TTI about two months in advance of that deadline, but did not provide any further breakdown or summary of those fees until the November 21st due date. In the Joint Statement, TTI maintains that because Chamberlain tardily produced this breakdown, TTI lacked the information necessary to provide specific objections to Chamberlain's invoices, which "contained numerous categories of fees and costs that [are] not compensable." (Joint Statement at 10, Dkt. 690.) Still, TTI then waited until January 3, 2018 to articulate its objections in its response to Chamberlain's motion for fees. Though both parties make much of this quarrel, Local Rule 54.3 does not mandate waiver in such circumstances, and here TTI's delayed articulation has not prejudiced the Court's ability to settle the fee dispute. The Court will accordingly consider TTI's objections as it weighs which fees to award in this case.

Chamberlain requests \$8,033,942.73 in attorneys' fees (Reply at 13, Dkt. 717 (explaining that since Chamberlain filed

its Motion for fees requesting \$8,286,135.93, Chamberlain received updated information regarding its legal expenses in this case and adjusted its request accordingly).) In support of its request, Chamberlain provides a breakdown of the billing rates for each attorney who worked on this matter. (M. Brody Decl. at 5-6, Dkt. 704-2.) The Seventh Circuit has "defined a reasonable hourly rate as one that is 'derived from the market rate for the services rendered.'" [Further, the court of appeals] presume[s] that an attorney's actual billing rate for similar litigation is appropriate to use as the market rate." *Pickett v. Sheridan Health Care Ctr.*, 664 F.3d 632, 640 (7th Cir. 2011) (quoting *Denius v. Dunlap*, 330 F.3d 919, 930 (7th Cir. 2003)). Here, Chamberlain provides the affidavit of Michael Brody, the Co-Chair of Winston & Strawn's IP Practice. Mr. Brody attests to extensive litigation and intellectual property experience and has been a member of this district's trial bar since 1985. He regularly handles litigation budgeting matters at his law firm, and he has applied that experience to his review of Chamberlain's billing invoices in this matter. He also reviewed the backgrounds of Chamberlain's attorneys and ultimately agreed that Chamberlain's proposed fees in this case are competitive with those incurred by other Chicago and nationwide firms handling patent litigation of similar

complexity. (See, Brody Decl., Dkt. 704-2.) Further, the Court compared the hourly rates for Chamberlain's and TTI's respective counsel. (Compare *id.* (reciting hourly rates for Chamberlain's counsel), with Dkt. 711-9 (reciting hourly rates for TTI's counsel).) When, as often occurs in Mr. Brody's declaration, Chamberlain lists an individual timekeeper's rates as a range rather than a single figure, the Court used the median of the range presented for the purposes of this comparison. These are the results: Chamberlain's attorneys charged an average of \$753.57/hour per partner and \$453.31/hour per associate; TTI's attorneys charged an average of \$747.35/hour per partner and \$410.80/hour per associate. These rates are not far apart — TTI's rates are within 10% of Chamberlain's—suggesting that the rates charged by Chamberlain's counsel do not much deviate from the market rate for services rendered. See, *Pickett*, 664 F.3d at 640. Because of this and Mr. Brody's declaration to the same effect, the Court agrees with Chamberlain that its counsels' recited hourly rates are reasonable.

Having determined that the rates are reasonable, the Court must decide whether it should subtract any sums from Chamberlain's requested total. Chamberlain provides the following breakdown of its attorneys' fees:

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Firm	Total Paid (-6097 Related IPRs)	Total Paid (-6097 Litigation)	Total Paid (-6097 Litigation & Related IPRs)
Winston & Strawn	\$0	\$1,737,490.30	\$1,737,490.30
Fish & Richardson	\$870,437.82	\$5,426,014.61	\$6,296,452.43

(Reply, Dkt. 717 at 13.) First, the Court will not award Chamberlain the \$870,437.82 it spent on counsel for IPR proceedings. Fees related to a separate legal proceeding cannot be recovered. *See, e.g., Hickory Farms, Inc. v. Snackmasters, Inc.*, No. 05 C 4541, 2008 WL 4542961, at *6 (N.D. Ill. Apr. 2, 2008). Chamberlain argues that other courts have permitted such recovery, *see, PPG Indus., Inc. v. Celanese Polymer Specialties Co.*, 840 F.2d 1565, 1568 (Fed. Cir. 1988); *Deep Sky Software, Inc. v. Southwest Airlines Co.*, No. 10 cv 1234, 2015 WL 10844231, at *2-3 (S.D. Cal. Aug. 19, 2015), but as TTI points out, both of the cases Chamberlain cites involved a stay of litigation pending the Patent Office proceedings. Thus, in those cases, “[t]he parties and the district court clearly intended to replace the district court litigation with the [Patent Office] proceedings.” *PPG Indus.*, 840 F.2d at 1568; *cf. Deep Sky*, 2015 WL 10844231, at *1. No such replacement occurred here, where the Patent Office proceedings ran concurrently with this litigation.

Nor can Chamberlain recover fees for efforts that ultimately failed. Prime among these is TTI's ultimately victorious appeal to the Federal Circuit from this Court's Order instituting the preliminary injunction. Chamberlain did not win that appeal, and the Federal Circuit has taken issue with district courts awarding fees related to court-of-appeals proceedings. *Phonometrics, Inc. v. Choice Hotels Int'l, Inc.*, 65 F. App'x 284, 285-86 (Fed. Cir. 2003) (vacating award of interlocutory-appeal-related attorney fees). The Court will not award Chamberlain the \$250,289.69 in fees and costs related to that appeal.

True, Chamberlain won fleeting victories on its motions for a preliminary injunction and for contempt. But the aforementioned Federal Circuit decision vacated those victories. The Court will not award Chamberlain for these unsuccessful motions, even if this Court at first agreed with Chamberlain's arguments. *Cf. Eli Lilly & Co. v. Zenith Goldline Pharm., Inc.*, 264 F. Supp. 2d 753, 771 (S.D. Ind. 2003) (denying fees for unsuccessful motions to compel and for summary judgment). However, calculating how much Chamberlain spent in fees pursuing these motions has not been simple. TTI helpfully provided a breakdown of the 2,289.90 total purported hours related to these motions and to the Federal Circuit appeal (see, Ex. E to

Response, Dkt. 711-5), but there are limits to that breakdown's usefulness: TTI did not break out which of these 2,000-plus hours relate to the appeal, as opposed to the motions; though TTI split up these total hours between individual timekeepers, TTI did not import the hourly fees for these timekeepers from the joint status report (Dkt. 690); and TTI lists one attorney twice, without explanation. Chamberlain did not provide a breakdown of its own. To clear this up swiftly and avoid further unnecessary briefing, the parties shall submit a joint report within fourteen (14) days providing a billing rate for each timekeeper appearing in TTI's list, and the report shall identify which hours relate to the appeal and which to the motions. For those timekeepers that Mr. Brody's declaration lists not a single hourly rate by a range, the parties shall use the median of that range.

To the remaining, sought-after attorneys' fees: TTI levies two objections the Court finds somewhat meritorious. In some instances, partners could have kept fees lower by delegating tasks such as responding to discovery requests and drafting simple motions to more junior, and thus less expensive, attorneys. *Prather v. Sun Life & Health Ins. Co.*, 852 F.3d 697, 699-700 (7th Cir. 2017) (reducing fee award for hours that could have been delegated to less pricey counsel). In other

instances, Chamberlain's counsel undertook clerical tasks for which compensation at attorney rates is not appropriate. See, *Delgado v. Vill. of Rosemont*, No. 03 C 7050, 2006 WL 3147695, at *2 (N.D. Ill. Oct. 31, 2006) ("A court should disallow time spent on 'clerical' or 'secretarial' tasks."). Still, having reviewed the time records kept by Chamberlain's counsel, the Court found such problems in no more than 5% of the entries. The Court accordingly imposes a 5% blanket reduction of Chamberlain's attorneys' fees. *Montanez v. Simon*, 755 F.3d 547, 552 (7th Cir. 2014) (observing that district courts have broad discretion "to adjust bloated bills for attorney's fees").

As described above, the final fee award turns upon a calculation the parties must make concerning what fees Chamberlain expensed in litigating its preliminary injunction and contempt motions. Once the parties submit a joint status report detailing that sum, Chamberlain's fee award will be calculated and ordered as follows: \$8,033,942.73 (Chamberlain's amended fee request), less \$870,437.82 (incurred via Patent Office proceedings), less \$250,289.69 (incurred via Federal Circuit appeal), less sum-to-be-determined (incurred via ultimately unsuccessful motions), less a 5% overall reduction of the resulting figure.

Finally, Chamberlain seeks \$1,221,021.74 in "non-taxable expenses," which includes "all costs claimed on its Bill of Costs." (Mot. for Attorney's Fees at 11-12, Dkt. 704.) The Court addresses these expenses below and will not award on this motion any amounts beyond those allowed from the bill of costs. (See, *infra* at Part VII.)

VII. Chamberlain's Bill of Costs

Federal Rule of Civil Procedure 54(d)(1) provides that a prevailing party may obtain reimbursement for certain litigation costs at the conclusion of a lawsuit. The Rule establishes a "presumption that the prevailing party will recover costs, and the losing party bears the burden of an affirmative showing that taxed costs are not appropriate." *Beamon v. Marshall & Ilsley Trust Co.*, 411 F.3d 854, 864 (7th Cir. 2005) (citing *M.T. Bonk Co. v. Milton Bradley Co.*, 945 F.2d 1404, 1409 (7th Cir. 1991)). In evaluating an application for costs, the Court must first determine whether the claimed expenses are recoverable and, second, whether the costs requested are reasonable. *Majeske v. City of Chicago*, 218 F.3d 816, 824 (7th Cir. 2000) (citation omitted). The Court has "wide latitude" in fixing a reasonable award. *Deimer v. Cincinnati Sub-Zero Prods., Inc.*, 58 F.3d 341, 345 (7th Cir. 1995) (citations omitted).

Here, Chamberlain's bill of costs and associated exhibits often fall short of a portrait of clarity. The Court will make calculations where possible and, where figures were missing or were not sufficiently itemized in Chamberlain's materials, the Court will rule how the remaining calculations are to be performed. Chamberlain shall submit a revised bill of costs within fourteen (14) days including those still-required calculations. No further briefing from either side is necessary.

A. Fees Paid to the Clerk and for Service of Process

Chamberlain requests \$1,463.00 under 28 U.S.C. § 1920(1), comprising: \$400.00 in fees paid to the clerk and \$1,063.00 in fees for service of process. The latter includes one hour of service at a \$65/hour rate for each witness served and three witness fee advances ranging from \$64 to \$87. All of these costs are recoverable under § 1920(1) and are reasonable. See *Clarendon Nat. Ins. Co. v. Medina*, No. 8 C 4245, 2010 WL 3526515, at *1 (N.D. Ill. Sept. 1, 2010) (reasonable rates for service of process); *Dishman v. Cleary*, 279 F.R.D. 460, 466 (N.D. Ill. 2012) ("Where service on a witness is reasonable at the time, witness fees advanced will be awarded."). Further, TTI does not object to this request. The Court allows the \$1,463.00 in costs.

B. Transcript Copies, Expedited Transcripts, and Realtime Services for Evidentiary Hearings and Trial

Chamberlain seeks costs for transcript copies, all ordered on a daily, hourly, or expedited basis, for all status hearings and motion presentments in the case, as well as for Realtime services and laptop rentals. Where the party seeking costs does not provide "any explanation as to why [it] obtained a copy of a daily transcript," it "may only recover costs at the ordinary transcript rates." *Se-Kure Controls, Inc. v. Vanguard Prod. Grp., Inc.*, 873 F. Supp. 2d 939, 945 (N.D. Ill. 2012). Chamberlain provides two justifications for its constant expediting. First, Chamberlain notes generally that it and TTI actually put these transcripts to use throughout litigation. Second, Chamberlain points out that not only were several stages of this case particularly fast-moving—e.g., the preliminary injunction and TTI's Federal Circuit petition for a writ of mandamus after this Court's denial of TTI's motion to transfer venue—but also that hearing transcripts were often cited before the Court throughout this litigation only days or weeks after they were ordered. (Chamberlain's Reply at 6, Dkt. 683 (citing three examples).) Further, expedited trial transcripts have been found to be reasonable and necessary where, as here, "the case involved expert witnesses whose cross-examination required

knowledge of the exact wording of their previous testimony or that of any other witnesses.” *Hillmann v. City of Chicago*, No. 04 C 6671, 2017 WL 3521098, at *8 (N.D. Ill. Aug. 16, 2017) (reciting this and four other factors courts consider when weighing whether to award daily trial transcripts). The Court agrees that often, the circumstances in this case reasonably demanded expedited transcripts. The same is true for Realtime and the associated laptop rentals, given that this trial was at times technical and complicated, and these services were reasonably necessary to ensure accurate and precise recording of expert testimony. *Cf. Martinez v. City of Chicago*, No. 14 CV 369, 2017 WL 1178233, at *23 (N.D. Ill. Mar. 30, 2017) (denying expedited transcript and Realtime costs where trial “was not particularly lengthy or complicated, and did not involve a significant number of witnesses speaking a language other than English”). However, these circumstances were not present at every moment of this litigation, and Chamberlain’s routine expediting and use of Realtime must have frequently been an untaxable convenience. Accordingly, the Court reduces Chamberlain’s costs for expedited transcripts, Realtime services, and laptop rentals related to hearings and trial by 15%.

C. Deposition-Related Fees

Chamberlain seeks \$9,469.27 for Realtime and associated computer rentals, as well as \$6,798.74 for rough, condensed, computer-based, and expedited transcripts, all related to nearly 30 pretrial depositions. Though TTI correctly points out that both types of expenses are generally considered to be obtained for convenience rather than out of necessity, see, *Cascades Computer Innovation, LLC v. Samsung Elecs. Co.*, No. 11 C 4574, 2016 WL 612792, at *4 (N.D. Ill. Feb. 16, 2016) (Realtime services); *DSM Desotech, Inc. v. 3D Sys. Corp.*, No. 08 CV 1531, 2013 WL 3168730, at *4 (N.D. Ill. June 20, 2013) (condensed and electronic transcripts), here Chamberlain explains that both were reasonably necessary given tight timelines in this case, namely: (1) transcripts from July and August 2016 depositions needed to prepare for a preliminary injunction hearing set for August 30, 2016; (2) transcripts from December 2016 and January 2017 depositions needed to prepare expert reports due on December 14, 2016 and January 23, 2017, respectively, as well as for the contempt hearing on January 5-6, 2017; (3) transcripts from July 2017 depositions necessary to prepare for *Daubert* motions, due July 21, 2017, and motions *in limine*, due July 28, 2017. The Realtime services and expedited transcripts were thus reasonably necessary for Chamberlain and its experts to prepare

in advance of Court-scheduled hearings and deadlines. The Court will allow the \$16,268.01 in costs under this category.

D. Video

Chamberlain seeks costs for video depositions of all of its own and TTI's witnesses. But generally, "[c]ourts in this circuit will not award costs for videotaping depositions where a transcript was also purchased." *Martinez v. City of Chicago*, No. 14 CV 369, 2017 WL 1178233, at *20 (N.D. Ill. Mar. 30, 2017) (quotation omitted) (brackets in original). And as already explained, Chamberlain purchased daily, hourly, or expedited transcripts for each of these depositions. Further, Chamberlain's explanation that many of these witnesses were outside the Court's subpoena power is insufficient to entitle it to these costs. *See, Clearlamp, LLC v. LKQ Corp.*, No. 12 C 2533, 2016 WL 7013478, at *3 (N.D. Ill. Nov. 30, 2016). The Court declines to award these costs, save for those costs related to those videotaped depositions played at trial, namely Carlson, Cameron, Butler, and Ely. *See, LG Elecs. U.S.A., Inc. v. Whirlpool Corp.*, No. 08 C 0242, 2011 WL 5008425, at *3 (N.D. Ill. Oct. 20, 2011) (awarding costs for video depositions played in court).

E. Digitization and Synchronization

Chamberlain also seeks costs for the digitation and synchronization of several video depositions. These costs will be taxed for those four videotaped depositions mentioned above that were played at trial. *Id.* (synchronization fees may be taxed when necessarily obtained for use in the case). But as the other video recordings were not reasonably necessary for the case, the Court will not award fees for their digitization and synchronization.

F. Fees for Witnesses

Chamberlain seeks \$6,443.13 for attendance fees, travel costs and lodging for its expert witnesses, of which TTI objects to \$853.30 in first class and duplicative airfare and to \$2,268.00 for unnecessary lodging charges. 28 U.S.C. § 1920(3) authorizes the award of costs to reimburse witnesses for their reasonable travel and lodging expenses, and 28 U.S.C. § 1821 provides for a per diem of \$40.00 per day for attendance at court hearings or deposition. *See*, 28 U.S.C. § 1920(3); 28 U.S.C. § 1821(a)-(b); *accord Olivarius v. Tharaldson Prop. Mgmt. Inc.*, No. 08 C 463, 2012 WL 1117468, at *5 (N.D. Ill. Apr. 3, 2012). Further, a witness's travel costs are taxable, but only "at the most economical rate reasonably available." 28 U.S.C. § 1821(c)(1). Concerning the airfare: Chamberlain arranged for

two first-class flights for its expert, Dr. Rhyne, even though the doctor apparently only took one of these flights—the other seems to have been booked as an alternative. The Court declines these costs, which do not represent travel booked “at the most economical rate reasonably available.” *Id.* Chamberlain now concedes that it cannot recover the costs of lodging for its experts for those days spent preparing, as opposed to days spent testifying. *DSM Desotech*, 2013 WL 3168730, at *1-2. The balance of Chamberlain’s lodging and attendance fees, however, is recoverable. *See, Olivarius*, 2012 WL 1117468, at *5. After subtracting the \$853.30 in first class/duplicative airfare and the \$2,268.00 for unnecessary lodging charges, the Court allows \$3,321.83 in witness costs.

G. Exemplification

Chamberlain seeks \$77,394.53 in exemplification costs, including time billed by Michael Ko, the on-site technician Chamberlain used at trial, and Joshua Rider, a Winston & Strawn employee, who created demonstratives and provided technical support. As an initial matter, the costs of preparing exhibits may be recovered, *Trading Techs. Int’l, Inc. v. eSpeed, Inc.*, 750 F. Supp. 2d 962, 981 (N.D. Ill. 2010) (citing *Cefalu v. Vill. of Elk Grove*, 211 F.3d 416, 428-29 (7th Cir. 2000)), but only for exemplification that was reasonably necessary “to the

presentation of one's case to the court," *Cefalu*, 211 F.3d at 429 (citing 18 U.S.C. § 1920(4)). "When a prevailing party does not identify the exhibits for which it claims costs, the court should deny awarding costs for the exhibits because it is impossible to determine whether the costs were necessary for use in the case." *Trading Techs.*, 750 F. Supp. 2d at 981 (citations and internal quotations omitted).

Chamberlain submits a summary sheet and three invoices describing its exemplification expenses. (See, Dkt. 638-4.) But the entries are generic and provide the Court no basis to determine whether the labored-over demonstratives were reasonably necessary. When the invoices actually list a specific-enough item that might be taxable (e.g., "rhyme slides," referring to demonstratives used during the testimony of Chamberlain's technical expert, Dr. Rhyme), those items are lumped together with other either non-taxable or else under-detailed items, thus making it impossible for the Court to determine appropriate costs. See, *Fox v. Will Cty.*, No. 04 C 7309, 2009 WL 723385, at *3 (N.D. Ill. Mar. 11, 2009) (refusing costs where invoice included "items that are clearly not taxable" as well as "others that might be taxable had more information been provided"). Chamberlain has failed to justify its exemplification expenses, so the Court will not award them.

See, *id.* (finding unjustified expenses not reasonably necessary).

H. Copying

Copying costs are recoverable but must be reasonable and "necessarily obtained for use in the case." See, 28 U.S.C. § 1920(4). Chamberlain must "identify the nature of each document copied, the number of copies of each document prepared, the copying cost per page, and the total copying cost." *Druckzentrum Harry Jung GmbH & Co. KG v. Motorola, Inc.*, No. 09 CV 7231, 2013 WL 147014, at *7 (N.D. Ill. Jan. 11, 2013) (citation and internal quotation marks omitted). Beyond this, however, Chamberlain need not "submit a bill of costs containing a description so detailed as to make it impossible economically to recover photocopying costs." *Northbrook Excess & Surplus Ins. Co. v. Procter & Gamble Co.*, 924 F.2d 633, 643 (7th Cir. 1991). Through an attorney affidavit (Dkt. 636), Chamberlain represents that the copies reflected in its summary and invoices (Dkt. 638-5) were used to support opening and closing statements, as well as in examination binders for sixteen directs, crosses, and depositions. Neither Chamberlain's affidavit nor its invoices state the number of copies made of each document, although Chamberlain's memorandum in support explains that while the answer is seven of each, Chamberlain

only seeks costs for three copies a piece given this Court's recognition that "district courts have usually limited recovery to three sets of copies, as a prevailing party may not recover copies made for its personal use, but may recover for copies submitted to the court and opposing counsel." *Menasha Corp. v. News Am. Mktg. Instore, Inc.*, No. 00 C 1895, 2003 WL 21788989, at *4 (N.D. Ill. July 31, 2003) (citations and internal quotations omitted). As to the cost per page: Chamberlain explains that the in-house copying rate at Winston & Strawn is \$0.10/page; this rate appears to be the same for black and white copies at Ricoh, one of Chamberlain's external vendors. (See, Dkt. 638-5 at 5.)

These invoices also include non-recoverable expenses such as "general pickup and delivery" (Dkt. 638-5 at 6) and "delivery charge" (*id.* at 9; see, *Chi. Bd. Options Exch., Inc. v. Int'l Sec. Exch., LLC*, No. 07 CV 623, 2014 WL 125937, at *3 (N.D. Ill. Jan. 14, 2014) (costs of courier, postage, and delivery charges are typically considered overhead and not allowable as costs)), as well as binders and tabs, *Berry Plastics Corp. v. Intertape Polymer Corp.*, No. 310 CV 00076, 2017 WL 167829, at *8 (S.D. Ind. Jan. 17, 2017) ("tabs, hole drilling, binders, and document scanning [. . .] are not compensable").

Given the above, the Court awards copying costs as follows: Chamberlain is entitled to costs for three copies of each of the deposition and trial documents described in its exhibits. If the invoices submitted do not already reflect this reduction – from seven copies to three—Chamberlain shall make the appropriate calculation in its revised bill of costs. Costs shall be calculated on a \$0.10/page rate for black and white copies, and \$0.60/page rate for color copies (the latter apparently the going rate at Ricoh, see, Dkt. 638-5 at 3). Chamberlain shall not be awarded costs for the remaining, untaxable or otherwise under-explained, miscellaneous items in these invoices, including delivery charges, binders, and tabs.

I. E-Discovery Fees

Chamberlain seeks \$61,680.65 in costs for optical character recognition (“OCR”), Bates stamping, and general document scanning. (See, E-Disc. Expenses Summary, Dkt. 639-1.) OCR expenses are “typically not recoverable as prevailing-party costs under 28 U.S.C. § 1920(4), because they are incurred purely to make a document searchable (as opposed to readable).” *Midwest Fence Corp. v. U.S. Dep’t of Transportation*, No. 10 C 5627, 2018 WL 1535081, at *3 (N.D. Ill. Mar. 29, 2018) (citations omitted). Costs for Bates labeling, however, have been found to be taxable. *Id.* (citing *DSM Desotech, Inc. v. 3D*

Sys. Corp., No. 08 CV 1531, 2013 WL 3168730, at *2 (N.D. Ill. June 20, 2013) (collecting cases)). However, Chamberlain's papers lump together costs for OCR, Bates, and scanning without providing a clear breakdown. (See, E-Discovery Cost Summary, Dkt. 639-1.) In the absence of a breakdown of these costs, the Court exercises its discretion to award 25% of the sought-after e-discovery expenses so that TTI will not be taxed for costs not recoverable under Section 1920(4). See, e.g., *Allen v. City of Chicago*, No. 10 C 3183, 2016 WL 1070828, at *9 (N.D. Ill. Mar. 16, 2016) (noting that where "the prevailing party has not met its burden of showing that the requested costs were necessarily incurred and reasonable . . . courts in this district have either reduced copying costs by a substantial percentage or denied copying costs entirely" and awarding 25% of the requested e-discovery costs given the absence of a breakdown of the fees charged); *Intercontinental Great Brands LLC v. Kellogg N. Am. Co.*, No. 13 C 321, 2016 WL 316865, at *2 (N.D. Ill. Jan. 26, 2016) (awarding 25% of requested processing fees in absence of a breakdown). The Court thus awards \$15,420.16 in e-discovery costs to Chamberlain.

VIII. CONCLUSION

For the reasons stated herein, the Court orders the following:

1. TTI's Motion for Judgment as a Matter of Law is denied (Dkt. 573);

2. TTI's Motion for a New Trial is denied (Dkt. 619);

3. Chamberlain's Motion for a Permanent Injunction is granted (Dkt. 622);

4. Chamberlain's Motion for Enhanced Damages is granted (Dkt. 624, 625), and the Court accordingly awards Chamberlain \$11.4 million in treble damages;

5. Chamberlain's Motion for Prejudgment Interest and Supplemental Damages is granted in part (Dkt. 630), and the Court awards the following:

a. Prejudgment interest of \$42,347, calculated by using the 52-week treasury bill rate, compounded monthly;

b. For the '275 patent, \$900,793 in GDO lost profits; \$54,672 in royalties; and \$134,496 in accessory lost profits, unless TTI has some repurchased GDO stock still on hand, in which case TTI may move the Court within fourteen (14) days to reduce the accessory lost profits damages accordingly;

c. For the '966 patent, \$18,224 in royalties.

6. Chamberlain's Motion for Attorneys' Fees is granted in part (Dkt. 703, 704), though the Court will not order any fees until the parties submit, within fourteen (14) days, a joint report as described in this ruling;

7. Chamberlain's Bill of Costs is granted in part (Dkt. 634), though the Court will not order any costs until Chamberlain submits, within fourteen (14) days, a revised bill of costs in accordance with this ruling.

IT IS SO ORDERED.

A handwritten signature in black ink, appearing to read 'Leinenweber', is written above a horizontal line.

Harry D. Leinenweber, Judge
United States District Court

Dated: 5/23/2018