UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

SD3, LLC,	)	
	)	
Plaintiff,	)	
	)	
v.	)	**Civil Case No. 08-1242 (RCL)**
	)	
JON W. DUDAS, Director, United States Patent & Trademark Office	)	
	)	
Defendant.	)	
	)	

MEMORANDUM OPINION

Table saws can be dangerous. Fortunately, inventors have designed safety mechanisms capable of stopping a saw nearly instantaneously upon human contact.[1] This case involves two rival designs for such a safety mechanism, both of which purport to stop the blade within 10 (or perhaps even 5) milliseconds of contact. The first was patented in 1974. The patent application for the second was filed in 2002 and was rejected.

SD3 filed the rejected application and now brings this action, pursuant to 35 U.S.C. § 145, to set aside the U.S. Patent and Trademark Office ("PTO") Board of Patent Appeals and Interferences's ("BPAI") decision. Defendant Jon Dudas, the Director of the PTO ("the Director"), has moved for summary judgment. Def.'s Mot., ECF No. 7. Because SD3 may be able to carry its burden in showing that the earlier patent could not possibly perform what it claims, the motion for summary judgment is DENIED.

[1] This technology has likely saved many fingers. *See, e.g.*, SawStop.com, "Finger Saves," *available at* http://www.sawstop.com/finger-saves (last accessed May 2, 2013) (photographs of "a few of the hundreds of SawStop customers who have avoided serious injuries" by using such a safety mechanism).

I. BACKGROUND

A. The "Friemann" Patent

United States Patent No. 3,858,095, issued in 1974, describes a design for a system to "provide a protective circuit arrangement suitable for a motor driven band cutter and which immediately stops the band cutter when it is touched." U.S. Patent No. 3,858,095 col.1 ll.44–47. (The design was invented by Wolfgang Friemann and Josef Proschka, and will be referred to throughout as "the Friemann patent.") The braking system outlined in the patent involves two subsystems: a motor brake and an electromechanical brake. *Id.* at col.1 ll.65–68. Friemann stated that "[e]xperiments have shown that with a protective circuit arrangement in accordance with the invention it is possible for a band cutter to be stopped in about 1/200th second [(5 milliseconds)]. . . ." *Id.* at col.2 ll.15. He further stated that the braking mechanism of his invention stops the band cutter in "less than 1/100th second [(10 milliseconds)]." *Id.* col.4 ll.5–6.

B. SD3's Application

In 2002, SD3 filed a patent application for a safety system which "detects [contact] between a person and the cutting tool and then stops the cutting tool within 10 milliseconds to mitigate [any injury]." Def.'s Statement ¶ 2; Pl.'s Statement 3. Claim 1 of the SD3 application reads:

> A machine comprising:
>
> an operative structure adapted to perform a task, where the operative structure includes a mechanical cutting tool adapted to move in at least one motion;
>
> a safety system adapted to detect the occurrence of an unsafe condition between a person and the cutting tool, where the safety system includes a detection subsystem adapted to detect the unsafe condition, and a reaction subsystem adapted to mitigate the unsafe condition;
>
> where the reaction subsystem includes a brake mechanism adapted to stop at least one motion of the cutting tool within 10 milliseconds after detection of the unsafe condition.

Def.'s Statement ¶ 3; Pl.'s Statement 3. Claim 30 further limits the brake mechanism described in claim 1 to one that is "adapted to stop at least one motion of the cutting tool in less than 5 milliseconds." Def.'s Statement ¶ 4; Pl.'s Statement 3.

C. Rejection of SD3's Application

The Examiner rejected Claim 1 of SD3's patent application as anticipated by the Friemann patent under 35 U.S.C. § 102, and Claim 30 as obvious over the same patent under 35 U.S.C. § 103. *Ex Parte Stephen F. Gass, David A. Fanning, David J. Fulmer & David S. Dascenzo*, APL 2007-4061, 2008 WL 2195265, *3–6 (B.P.A.I. May 27, 2008). SD3 appealed this rejection to the BPAI. *Id.* Its appeal pressed only a single issue: that the Friemann design did not "enable" the brake mechanism to stop a cutting tool in 10 milliseconds. *Id.* at 3. To show non-enablement of the Friemann patent (and thereby save its own application) SD3 presented declarations of its own inventor, Dr. Stephen F. Gass, and a Professor of Mechanical Engineering, Dr. David A. Turcic, stating that the Friemann design was physically incapable of performing what the patent claimed. *Id.*

The BPAI found SD3's evidence "deficient as a matter of law for establishing non-enablement of Friemann." *Id.* at *4. The BPAI credited Dr. Turcic's expertise, but complained that his declaration relied on "significant assumptions and conjecture regarding the device of Friemann" and "focuse[d] on his own personal knowledge rather than the experimentation necessary for one of ordinary skill to make and use the invention the reference discloses." *Id.*

First, the BPAI found that both declarations relied on an unjustified assumption about the nature of the relays used in making their calculation; both assumed that the system would use relatively slow "standard relays" when in fact quicker relays were available.[2] *Id.* The BPAI

[2] Dr. Turcic explains that a relay is "an electrical switch that opens and closes under the control of another electrical circuit." Decl. Dr. David A. Turcic ¶ 32, ECF No. 10-1.

rejected the declarants' contention that these quicker relays were inappropriate for this system as there was "insufficient evidence in the record as to the state of the relay art, that such relays identified by the Examiner could not be used for the purposes of a braking system of Friemann." *Id.*

Second, the BPAI found that both declarations relied on "a specific configuration of the motor and the brake in the analyses presented rather than focusing on the undue experimentation analysis required by the jurisprudence."[3] *Id.* at *5

Third, the BPAI suggested that Dr. Turcic's analysis failed to evaluate the *combination* of the two systems—direct current ("DC") braking of the motor and application of the electromechanical brake. *Id.*

Fourth, the BPAI found that Dr. Turcic failed to model "a DC motor that [has] sufficiently low rotational inertia to stop in 6 ms." *Id.*

Fifth, the BPAI found that both declarations inappropriately relied on measurements inferred from drawings not drawn to scale. *Id.*

Sixth, the BPAI found that the declarations focused on electromagnetic brakes when in fact the disclosed electro-mechanical brake and "magnet brake" may not "refer exclusively to electromagnetic brakes." *Id.*

Seventh, the BPAI found that the declarations mistakenly "assume[d] various characteristics of the pulleys [in the system] such as dimension, configuration, mass, etc., and assumes that there is no slippage between the band cutter and the guide rollers." *Id.* at *6.

D. This Action

SD3 filed this action pursuant to 35 U.S.C. § 145, to set aside the BPAI's rejection. It concedes that if the Friemann system "can, in fact, stop a blade within 10 milliseconds"—or,

[3] For an overview of the relevant patentability standards, *see infra* Section II.B.

"using patent terminology, if the Friemann patent 'enables' such a machine"—then "the rejection of plaintiff's patent application is correct." Pl.'s Opp'n 2. To support its position that Friemann does not "enable" such a machine, SD3 provides updated declarations from Dr. Turcic and Dr. Gass, as well as a declaration from another mechanical engineer William Emery.

1. Dr. Gass' Declaration

Dr. Gass holds several degrees, including a Ph.D. in physics from the University of California San Diego. Dr. Stephen Gass Decl. ¶ 2, ECF No. 10-3. He is the founder and manager of SD3, and the inventor of the new design at issue in this case. *Id.* ¶¶ 1, 5.

He states that "it is impossible for the motor brake and electromechanical brake disclosed in [the] Friemann [patent] to stop the blade" in 10 milliseconds because "[t]he mass and inertia of the motor and rollers . . . and the way motors and electromechanical brakes operate, make that impossible." *Id.* ¶ 14. He purports to demonstrate the inadequacy of the motor brake by way of a mathematical calculation based on the speed of the blade according to Friemann, "conservative estimates" about the mass and radius of each roller, the number of rollers, and the strength of the motor. *Id.* ¶¶ 15–21. He concludes: "The electric motor and rotating rollers used in a band saw as disclosed by Friemann would have rotational inertia and energy that must be absorbed to stop the blade, and electric motors simply cannot provide sufficient braking torque to stop themselves and the rollers in [a 10 millisecond] time frame." *Id.* ¶ 21. As to the electromechanical brake, he states that "[e]lectromechanical brakes able to provide stopping torque on the order of what is needed to stop Friemann's motor and rollers within 10 milliseconds require well over 10 milliseconds to operate"—and thus such a mechanism could not contribute to stopping the motor or rollers within the first 10 milliseconds after contact. *Id.* ¶ 22.

He also responds to the BPAI's findings regarding the speed of the "relays" used in modeling Friemann. In his prior declaration, Dr. Gass had testified that relays capable of switching power to motors and electromechanical brakes normally take 5–15 milliseconds to operate. The BPAI rejected this contention, identifying relays that operate within as little as 1 millisecond. Dr. Gass responds by stating that those relays "would not accommodate the electrical current needed to power motor braking and electromechanical brakes" since "[t]he size of the wires and contacts inside the[se] relays . . . are too small and would simply melt or be destroyed if they were to be used to switch the current required for motor braking or electromechanical brake actuation." *Id.* ¶ 29.

2. Dr. Turcic's Declaration

Dr. Turcic is Associate Professor of Mechanical Engineering at Portland State University in Portland, Oregon. Dr. David Turcic Decl. ¶ 1, ECF No. 10-3. He holds a Ph.D. in mechanical engineering from Pennsylvania State University. *Id.* ¶ 2. He was retained by SD3 to provide expert testimony. *Id.* ¶ 4. The BPAI "fully credit[ed] Dr. Turcic as an expert" in this case. *Ex Parte Stephen F. Gass*, 2008 WL 2195265, at *4.

Like Dr. Gass, Dr. Turcic concludes that "the laws of physics preclude a brake mechanism as described in the Friemann patent from stopping a blade within 10 milliseconds after detection of an unsafe condition between a person and the blade." Turcic Decl. ¶ 7. With respect to the motor brake, like Dr. Gass, Dr. Turcic's conclusion is based on a mathematical calculation based on the speed of the saw (as stated in the Friemann patent), and the size of "rollers and pulley" in the system (inferred from a diagram in the Friemann patent and general knowledge of typical sizes of these parts). *Id.* ¶¶ 10–11. From this data, he calculates that,

regardless of the size of the motor used, the brake could not be effective in 10 milliseconds. *Id.* ¶ 12.

As to the electromechanical brake system, he concurs with Dr. Gass that "an electromechanical brake of the size required cannot even engage and begin to start applying torque in anywhere near the required 10 milliseconds" and so "in the first 10 milliseconds the electromechanical brake would not contribute in any significant way to stopping the motor." *Id.* ¶ 13.

Dr. Turcic also responds to several of the arguments made by the BPAI regarding his earlier testimony.

First, he insists that, contrary to the BPAI's contention, his conclusion "was not based on a specific configuration" but rather was "based on the fact that a motor and electromechanical brake are required in Friemann's disclosure, and such a combination cannot stop the blade in Friemann's machine within 10 milliseconds regardless of their configuration and regardless of the amount of experimentation." *Id.* ¶ 28.

Second, in response to the BPAI's criticism of his reliance on the patent drawings, he states that his "prior calculations do not presume that Friemann's patent drawings disclose specific dimensions" but only that the Friemann band cutter "must include a motor and pulleys and that those components must be sized so that they can perform the required functions of a band cutter," and that, if so sized, these parts would possess rotational inertia such that the system would be incapable of stopping the band saw within 10 milliseconds. *Id.* ¶ 29.

Third, he rejects the BPAI's statement that the Friemann patent's reference to magnet brakes and electromechanical brakes might not refer exclusively to electromagnetic brakes. *Id.* ¶ 30.

Fourth, with regard to the BPAI's reference to a more powerful motor, he states that such a motor could not work effectively in this system because no motor could "generate enough torque to stop itself *and* the required rollers and pulley within 10 milliseconds . . . without undue experimentation." *Id.* ¶ 31 (emphasis added).

Fifth, with regard to relays, he states that "as of March 31, 2001, relays big enough to switch power to motors and electromechanical brakes, as disclosed by Friemann, conservatively took 5–15 milliseconds to operate." *Id.* ¶ 32. Acknowledging the BPAI's statement that there was "insufficient evidence to conclude that [faster] relays could not be used in Friemann's braking mechanism," Dr. Turcic insists that even if those relays could be used, "at least a significant portion of 10 milliseconds would still be required for those relays to operate, and that time must be added to the time required for the motor, rollers and pulleys to stop." *Id.* ¶ *33.*

3. William Emery's Declaration

William Emery holds Bachelors of Science in physics and mechanical engineering from Linfield College and Oregon State University, respectively. William Emery Decl. ¶ 1, ECF No. 10-6. He works as an engineer at SawStop, a company that designs, manufactures and sells table saws and accessories for the woodworking industry. (Notably, Dr. Gass is also founder, manager and president of the company. Gass Decl. ¶ 5.)

Mr. Emery confirms Dr. Turcic's method of analysis as well as his conclusion: "A person of ordinary skill in the art seeking to make a brake mechanism as disclosed in Friemann would consider the rotational inertia of motor armatures and rollers and would determine the amount of torque required to stop those components within 10 milliseconds by making the same calculations as Dr. Turcic." Emery Decl. ¶ 12. And, such a person "would arrive at the same conclusions as Dr. Turcic." *Id.*

4. The Director's Evidence

The Director provides no additional evidence in this matter, and instead relies exclusively on the language of the Friemann patent, the findings of the BPAI and Examiner, and legal presumptions discussed below.

II. LEGAL STANDARD

A. Summary Judgment

Summary judgment should be granted when "the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a); *see also Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247 (1986). A fact is material if it could affect the outcome of the case. *Id.* A dispute is genuine if the "evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Id.* The "evidence of the non-movant is to be believed, and all justifiable inferences are to be drawn in his favor." *Id.* at 255. The non-movant, however, must establish more than "the existence of a scintilla of evidence" in support of his position, *id.* at 252, and may not rely solely on allegations or conclusory statements, *Greene v. Dalton*, 164 F.3d 671, 675 (D.C. Cir. 1999); *see also Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986) ("Rule 56(c) mandates the entry of summary judgment, after adequate time for discovery and upon motion, against a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial.").

B. Relevant Patentability Standards

1. Anticipation

A patent application will be rejected for "anticipation" under 35 U.S.C. § 102 if "the invention was patented or described in a printed publication . . . more than one year prior to the

date of the application . . . ." 35 U.S.C. § 102(b) (2006).[4] If every limitation recited in its claim was disclosed in a prior art reference (i.e. publications showing that the technology was known before the instant application) more than a year before the applicant filed the application, the application will be rejected. *In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990). However, in order to have this preclusive effect on future patent applications, the prior art reference must be "enabling"; that is, it must "teach one of ordinary skill in the art to make or carry out the claimed invention without undue experimentation." *Elan Pharms., Inc. v. Mayo Found. for Med. Educ. & Research*, 346 F.3d 1051, 1054 (Fed. Cir. 2003). In evaluating whether "undue experimentation" is needed, courts examine eight factors:

(1) the quantity of experimentation;
(2) the amount of direction or guidance present;
(3) the presence or absence of working examples;
(4) the nature of the invention;
(5) the state of the prior art;
(6) the relative skill of those in the art;
(7) the predictability or unpredictability of the art; and
(8) the breadth of the claims.

Impax Labs., Inc. v. Aventis Pharms., Inc., 545 F.3d 1312, 1314–15 (Fed. Cir. 2008) (citing *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988)).

In addition, "[w]hether a prior art reference is enabling presents a question of law based upon underlying factual findings." *Id.* at 1315. And, importantly, in a patent prosecution where the Examiner has cited a prior art reference which expressly anticipates the present invention, a presumption of enablement attaches to that prior art. *In re Sasse*, 629 F.2d 675, 681 (C.C.P.A. 1980). The burden shifts to the applicant to show, by a preponderance of the evidence, that the prior art fails to enable. *Id.*

[4] Section 102 was amended by the Leahy-Smith America Invents Act, Pub. L. 112-29, Sec. 3, 125 Stat 284 (Sept. 16, 2011). But, the old version still applies to this case, since the patent application was filed well before the amendment's effective date. *See id.* Sec. 35.

2. Obviousness

Similarly, a patent application will be rejected for "obviousness" under 35 U.S.C. § 103 if "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting 35 U.S.C. § 103(a)[5]). Here too there is an enablement requirement on the prior art: "[a]lthough published subject matter is 'prior art' for all that it discloses, in order to render an invention unpatentable for obviousness, the prior art must enable a person of ordinary skill to make and use the invention." *In re Kumar*, 418 F.3d 1361, 1368 (Fed. Cir. 2005).

C. Cause of Action Under 35 U.S.C. § 145

Section 145 of Title 35 of the U.S. Code provides a right of action in this Court for "[a]n applicant dissatisfied with the decision of the Patent Trial and Appeal Board in an appeal." 35 U.S.C. § 145 (2006).[6] "The Court may adjudge that such applicant is entitled to receive a patent for his invention, as specified in any of his claims involved in the decision of the Patent Trial and Appeal Board, as the facts in the case may appear and such adjudication shall authorize the Director to issue such patent on compliance with the requirements of law." *Id.*

An action under this provision is a unique "hybrid of an appeal and a trial de novo." *Winner Int'l Royalty Corp. v. Wang*, 202 F.3d 1340, 1345 (Fed. Cir. 2000). The Court makes a "de novo determination" on the ultimate legal question of patentability. *Newman v. Quigg*, 877

[5] This provision was amended by the America Invents Act, PL 112-29, Sec. 3, but the old version still applies here because the application predates the effective date of the statute.

[6] As of the application's filing date, the statute provided the District Court for the District of Columbia as the venue. The provision was recently amended to make the Eastern District of Virginia the venue. *See* America Invents Act, PL 112-29, Sec. 9. Again, the old version applies here because the application date for the patent predates the amendment.

F.2d 1575, 1579 (Fed. Cir. 1989). "[T]here are no limitations on a patent applicant's ability to introduce new evidence in a § 145 proceeding beyond those already present in the Federal Rules of Evidence and the Federal Rules of Civil Procedure." *Kappos v. Hyatt*, 132 S. Ct. 1690, 1700–01 (2012). "[I]f new evidence is presented on a disputed question of fact, the district court must make de novo factual findings that take account of both the new evidence and the administrative record before the PTO." *Id.* at 1701. Even when weighing new evidence, however, the Court may still consider at its discretion "the proceedings before and findings of the [PTO] in deciding what weight to afford . . . [the] newly-admitted evidence." *Id.* at 1700.

III. ANALYSIS

The Director's motion for summary judgment hinges on whether Friemann satisfies the "enablement" requirement. If Friemann enables "one of ordinary skill in the art to make or carry out the claimed invention"—*i.e.* a safety system capable of stopping a saw in 10 milliseconds—"without undue experimentation," then SD3's application was properly rejected by the BPAI. *See Elan Pharmaceuticals, Inc.*, 346 F.3d at 1054; *see also* Pl.'s Opp'n 1–2 ("if the Friemann patent 'enables' such a machine . . . then the rejection . . . is correct."). However, if the old patent does not meet this standard, the BPAI's determination must be reversed, as Friemann could not then properly anticipate SD3's claim 1 under 35 U.S.C. § 102, nor could it render SD3's claim 30 obvious under 35 U.S.C. § 103. *See Elan Pharmaceuticals, Inc.* 346 F.3d at 1054; *In re Kumar*, 418 F.3d at 1368.

The issue is actually narrower than just stated. SD3's declarants purport to show that it is *physically impossible* for Friemann to perform what it claims. If true, Friemann would fail under the enablement factors outlined in *Impax Labs* and listed above: no amount of experimentation could produce a result that is impossible (factor 1); Friemann could provide no guidance for how

to achieve such a result (factor 2); nor could there be any working examples of such a result (factor 3).[7] Because this is SD3's sole theory of non-enablement, and because non-enablement is its sole justification for seeking reversal of the BPAI decision, SD3's case succeeds or fails based on its establishing the impossibility of Friemann's claim.

The issue must be still further refined. The Court's analysis is framed by three intersecting legal frameworks: (1) the rules governing actions under 35 U.S.C. § 145, under which "the district court must make de novo factual findings that take account of both the new evidence and the administrative record before the PTO," *Kappos v. Hyatt*, 132 S. Ct. at 1701; (2) the presumption of "enablement" that attaches to prior art, which shifts the burden to the applicant in a patent prosecution to prove, by a preponderance of the evidence, that the prior art fails to meet the enablement requirements, *In re Sasse*, 629 F.2d at 681; and (3) the summary judgment standard, pursuant to which "the movant [must] show[] that there is no genuine dispute as to any material fact," Fed. R. Civ. P. 56(a), and the "evidence of the non-movant is to be believed, and all justifiable inferences are to be drawn in his favor," *Anderson*, 477 U.S. at 255.

In sum, the question the Court must address here is: has the Director shown that no reasonable jury could find that SD3's three declarations outweigh the Director's own evidence regarding whether the Friemann patent is physically capable of producing the results it claims? Because a reasonable jury could find that SD3's evidence defeats the presumption of enablement that attaches to Friemann and show, by a preponderance of the evidence, that it is physically impossible for the old patent to produce a safety system capable of stopping a saw in 10 milliseconds, the Director's motion will be denied.

[7] The remaining factors—(4) the nature of the invention; (5) the state of the prior art; (6) the relative skill of those in the art; (7) the predictability or unpredictability of the art; and (8) the breadth of the claims—do not weigh heavily for either side in this case.

A. SD3 Rebuts the Presumption of Enablement

The Friemann patent is initially entitled to a presumption of enablement. *In re Sasse*, 629 F.2d at 681. SD3 attacks this presumption on three fronts, all purporting to show that no amount of experimentation could produce a system that worked as Friemann proposes, since such a system is physically impossible.

First, SD3's declarants point to a mathematical analysis (based on a formula into which SD3's declarants plug a variety of figures; some drawn directly from the Friemann patent, others from independent knowledge) which purports to show that it is impossible for the *motor brake* to stop the machine in 10 milliseconds. Turcic Decl. ¶¶ 7–12; *see also* Gass Decl. ¶¶ 14–21; Emery Decl. ¶ 12.

Second, SD3's declarants claim that any electromechanical brake capable of providing the torque needed to stop the motor this quickly would itself require more than that amount of time to operate, and thus could not contribute to stopping the machine within that period. Turcic Decl. ¶ 13; *see also* Gass Decl. ¶ 22.

Third, SD3's declarants claim that any relay powerful enough to be used in this system would take between 5–15 milliseconds to operate—time which must be added onto the actual braking function. Turcic Decl. ¶ 33; *see also* Gass Decl. ¶ 29.

Together, these points create a genuine issue of material fact as to whether SD3 would be able to prove, by a preponderance of the evidence, that the Friemann patent was not physically capable of stopping a saw within 10 milliseconds. This is enough to defeat the Director's motion.

B. The Director's Attacks on SD3's Points Fails to Eliminate any Genuine Issue of Material Fact as to Enablement

The Director's attempts to deflate these points are unavailing.

1. Friemann Experiments

The Director points to the "experiments" claimed by the Friemann patent as conclusive evidence of enablement. Def.'s Mem. 17–18; Def.'s Reply 6–7. But, as SD3 points out, the patent "fails to identify or describe the alleged experiments in any way—there is no disclosure of how, when or where the experiments took place." Pl.'s Opp'n 19. Moreover, the Director's reliance on these experiments begs the question: no experiment could prove something that is actually impossible. Though the Director is correct that patent applicants are "held to a high duty of candor with respect to statements they make in their patent applications," this alone is hardly enough to overcome SD3's assertions, based on the laws of physics, that Friemann's experiments simply could not have reached the results he claims. SD3's declarations are powerful enough to overcome the presumption of enablement that attaches to these bare statements regarding experiments.

2. SD3 Declarants' Assumptions

The Director also challenges assumptions made by the SD3 declarants in their model of the Friemann design.

First, he claims that SD3 declarants "assessed the operability of only a single configuration of a saw, and . . . fail[ed] to consider saws and parts of all sizes," Def.'s Reply 9; *see also id.* at 10 (stating that SD3 declarants "all assume a single oversized design for Friemann's saw" when they should have "considered a variety of band saws, of varying sizes and configurations"); *id.* at 11 (stating that SD3 declarants "make a single attempt to analyze whether it is possible to build Friemann's invention, taking an unreasonably narrow reading of the band

saw shown in Figure 2 of Friemann without modification"); *id.* at 11–12 (stating that SD3 declarants are "devoid of any *serious consideration of bandsaws of different sizes or configuration*—ones having *small parts* in particular . . ."); Def.'s Mem. 20 ("[D]eclarants read Friemann incredibly narrowly . . . ."); Def.'s Mem. 21–27.

Second, he claims that "Friemann suggests applying the brake to 'the drive pulley or flywheel of the motor,' merely as one 'example' of application of a mechanical brake," but that the SD3 declarants "refuse to consider any alternatives to this one example." Def.'s Reply 10–11.

Third, he attacks the declarants' reliance on a drawing appearing in Friemann's patent disclosure. Def.'s Mem. 24; Def.'s Reply 14–16.

These challenges fail to eliminate all genuine issues of material fact as to SD3's ability to show non-enablement.

As to the first criticism, Dr. Turcic's declaration expressly denies that his conclusions rest on "a specific configuration," and insists that they are based "on the fact that a motor and electromechanical brake are required in Friemann's disclosure, and such a combination cannot stop the blade in Friemann's machine within 10 milliseconds regardless of their configuration . . . ." Turcic Decl. ¶ 28. Accordingly, the Court finds that there is a genuine issue of material fact on this point.

As to the second criticism, because the Director fails to provide any examples of the "alternatives," the Court finds that this argument is insufficient to satisfy his burden here.

As to the third criticism, Dr. Turcic's declaration disclaims any specific reliance on the patent drawings, insisting that his "calculations do not presume that Friemann's patent drawings disclose specific dimensions" but only that the Friemann band cutter "must include a motor and

pulleys and that those components must be sized so that they can perform the required functions of a band cutter," and that, if such sized, these parts would possess rotational inertia such that the system would be incapable of stopping the band saw within 10 milliseconds. *Id.* ¶ 29. Again, the Director may ultimately still prevail on this point, but he has failed to eliminate any genuine issue of material fact, such that SD3 may be able to rebut the presumption of enablement. Thus, the Director is not entitled to summary judgment.

3. The Relays

Finally, the Director also attacks Dr. Gass's explanation that the faster relays referred to in the Board's decision could not be used in this system because they would melt, which leaves only relays that take between 5 and 15 milliseconds to act (making it even more unlikely for the system to act within 10 milliseconds). Def.'s Reply 17. The Director complains that these assertions about the 1 millisecond relays are offered "without any support." *Id.* Because this argument provides an *additional* reason to doubt that the Friemann patent could work in 10 milliseconds (and thus to block summary judgment), the Court need not and will not decide this issue of sufficiency here.

IV. CONCLUSION

Defendant's motion for summary judgment is DENIED. An order shall issue with this opinion.

Signed by Royce C. Lamberth, Chief Judge, on July 8, 2013.