

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF WISCONSIN

ARMAMENT SYSTEMS AND PROCEDURES, INC.,

Plaintiff,

v.

Case No. 00-C-1257

IQ HONG KONG LIMITED, et al.,

Defendants.

MEMORANDUM DECISION AND ORDER

The issue presently before the Court in this consolidated action for patent infringement is whether the plaintiff engaged in inequitable conduct before the United States Patent and Trademark Office, thereby rendering the patent in suit unenforceable. Following a four-day bench trial, the Court set a briefing schedule for the parties and took the matter under advisement. The parties have submitted briefs and replies, and the matter is now ripe for decision. For the reasons set forth herein, I find by clear and convincing evidence that the plaintiff committed inequitable conduct and conclude that the '018 patent is therefore unenforceable. The following constitutes my findings of fact and conclusions of law pursuant to Rule 52(a) of the Federal Rules of Civil Procedure.

BACKGROUND

Plaintiff Armament Systems and Procedures, Inc., (ASP) is a Wisconsin corporation that develops, manufactures and sells products used by law enforcement and security personnel. In the late 1990's, ASP developed a miniature flashlight which it began selling under the registered

trademarks SAPPHIRE and WEARABLE LIGHT to a wider market. ASP originally commenced this action on September 14, 2000, against defendants IQ Hong Kong Limited, Zen Design Group Limited, and Sun Yu, alleging that they had violated federal and state law governing unfair trade practices by copying the design and trade dress of ASP's LED flashlights and even selling them under the same names. On February 20, 2001, the United States Patent and Trademark Office issued Patent No. 6,190,018 ("the '018 patent"), which discloses a miniature LED flashlight. ASP, the assignee of the '018 patent, thereafter filed an amended complaint against the original defendants adding a claim of patent infringement. In the months that followed, ASP sued twenty-three additional manufacturers, distributors, and/or retail sellers of handheld miniature flashlights in seven separate actions for infringement of the '018 patent.

On April 5, 2001, one of the defendants filed with the PTO the first of two ex parte petitions to reexamine the '018 patent in light of a dozen previously issued patents, including Patent No. 5,893,631 issued to Stephen J. Padden on April 13, 1999, and several other publications. By agreement of the parties, proceedings in ASP's infringement actions were stayed pending completion of the reexamination process. The stay was lifted on April 7, 2004, when ASP advised the court that the '018 patent had emerged from reexamination intact, and the cases were consolidated pursuant to Rule 42 as to all issues involving claim construction and patent validity. Fed. R. Civ. P. 42(a). The court issued claim construction decisions on January 5 and June 15, 2005. Since that time, discovery has continued, and ASP has settled its claims against several of the defendants.

On January 10, 2007, the Court granted the motion of six of the remaining defendants, IQ Hong Kong Limited, Zen Design Group Limited, Emmissive Energy Corporation, Vector Products,

Inc., Target Corporation, and Team Products International, to conduct a separate bench trial on their claim that Kevin Parsons, Ph.d., the president and CEO of ASP and one of the named inventors of the patent in suit, engaged in inequitable conduct before the PTO during the reexamination process when, in 2002, he filed with the office a Rule 131 declaration along with a draft sketch of the invention, referred to herein as “Q1.” Based primarily on indentations on Q1 of a sketch bearing a date more than a year and a half after its purported June 14, 1997, date of creation, and another sketch bearing a date almost three years later, the defendants claimed that Dr. Parsons drafted Q1 on a date much later than shown on the document in order to overcome the patent issued to Padden, whose application date was November 3, 1997. Dr. Parsons passionately denied submitting a false document to the PTO, thereby joining the issue to be tried.

ANALYSIS

I. LAW OF INEQUITABLE CONDUCT

“To hold a patent unenforceable due to inequitable conduct, there must be clear and convincing evidence that the applicant (1) made an affirmative misrepresentation of material fact, failed to disclose material information, or submitted false material information, and (2) intended to deceive the U.S. Patent and Trademark Office.” *Cargill, Inc. v. Canbra Foods, Ltd.*, 476 F.3d 1359, 1363 (Fed. Cir. 2007). If the court finds materiality and intent to deceive, the court

must balance the equities to determine whether the patentee has committed inequitable conduct that warrants holding the patent unenforceable. The more material the omission or misrepresentation, the less intent that must be shown to elicit a finding of inequitable conduct. If inequitable conduct occurred with respect to one or more claims of an application, the entire patent is unenforceable.

Impax Laboratories, Inc. v. Aventis Pharmaceuticals Inc., 468 F.3d 1366, 1375 (Fed. Cir. 2006) (citations omitted).

Here, the analysis is clear-cut. Because the Q1 document resulted in the patent examiner's allowance of Parsons' claims as prior to Padden, it is conceded that Q1 was material information. And because the creation of a document with a false date is clearly an intentional act, the issue of intent is not at issue. In other words, the only question is whether Q1 was actually drafted in 1997 or whether it was created later by Parsons. If the evidence shows that it is a false document, the equities overwhelmingly support finding the patent unenforceable because it was essentially procured by fraud.

II. EVALUATION OF THE EVIDENCE

A. Q1 and Related Sketches

The bulk of this trial (and the genesis of the motion to have a trial in the first place) involved the forensic examination of Q1, the sketch Parsons submitted to the PTO in order to establish an earlier conceptualization date than Padden. (Ex. 8.) Using an ElectroStatic Detection Apparatus (ESDA), the forensic document examiners found impressions of other documents on Q1. (Ex. 1132.) The ESDA operates on the principle that the act of writing on one page while that page is in contact with a second or third page causes the indented image of the writing to be imparted to the underlying pages. This image is not only a physical impression, but also resides in the electrostatic field generated by the paper. By analyzing the impressions, the examiner can determine which documents were written on top of others. Under some circumstances, this can indicate the sequence in which they were drawn.

In this case, for example, it is undisputed that Q1 has indentations from a sketch of a knife (Q2) that was signed by Parsons and dated February 20, 1999. (Ex. 1133.) A later examination

revealed that a second sketch (Q6), bearing a date of May 20, 2000, was also impressed onto both the February 1999 and the June 1997 documents. (Exs.1135, 1136.) Based on the distinct properties of the paper on which all three sketches had been drawn, including the line-to-edge spacing of the printed graph lines, cut marks¹ on the sides of the paper, and identical defects or voids in the graph lines, Alan Robillard, the defendants' expert and former Chief of the Questioned Documents Unit of the FBI Laboratory, concluded that all three sketches had come from the same pad of graph paper. Robillard also noted the nearly perfect registration of the paper² and alignment of the impressions, and that the page on which each sketch and/or impression was made had the same orientation³ it would have had in the pad when the sketch and/or impression was made. From these findings, Robillard concluded that the February 1999 drawing (Q2) was created while fixed in a pad of graph paper within a few sheets above Q1, and the May 2000 document (Q6), in turn, was created while fixed in the same pad within a few sheets of Q2 and Q1.⁴ It thus follows, in Robillard's view, that "to a virtual certainty" the February 1999 sketch (Q2) was drawn, and the

¹ Cut marks refer to slight indentations in the sides of the paper that are made when a blade is passed diagonally along the edges of the pads in the manufacturing process. (Tr. 163-64; Exs. 1127, 1129.)

² The term "registration," in this context, refers to the manner in which the printed lines on a pad of graph paper "are lined up one above the other, "[s]o if you look straight down, you'd see just one line." (Tr. at 166.)

³ According to Robillard, each sheet of paper in a pad has an identifiable front and back, top and bottom, and left and right side. (Tr. 183-84.) Robillard testified that when each of the indentations and/or sketches was made, the page on which it appears had the same orientation it would have if still affixed to a pad. (Tr. 224.)

⁴ The fact that no glue or adhesive was found on the documents did not affect Robillard's opinion that the sketches were drawn when they were affixed to a pad. Robillard testified that glue is no longer used to affix sheets to a pad and suggested that the latex adhesive that is now used is not always detectable. (Tr. 213-14.)

image was impressed onto the underlying page (Q1), before Parsons made the sketch of a miniature flashlight that he later represented to the PTO as having been created before November 3, 1997. (Tr. 191.) Given the dates on Q2 and Q6, Robillard concluded that the date affixed to Q1 was false. (Tr. 191, 214-15.)

Shortly before trial, a fourth sketch (Q11) surfaced that, in the view of the defendants, indicates the likely time when Q1 was actually created. (Ex. 1137.) Q11 depicts a military baton case and is dated October 14, 2002. That document reveals clear impressions of Q1 (the June 14, 1997, sketch of the Sapphire light) and weaker impressions of Q2 (the February 20, 1999, sketch of a knife). (Exs. 1142, 1143.) As a result of his examination of Q11, Robillard concluded that it was from the same pad of graph paper as Q1, Q2, and Q6. (Tr. 226-27.) From his analysis of all four sketches, Robillard concluded that Q6 (May 20, 2000) was drawn first, leaving its image on the page on which Parsons sketched Q2 (February 20, 1999), which then left its impression on a succeeding page upon which Parsons drew Q1 (June 14, 1997), which then left its impression on the page that finally became Q11 (October 14, 2002). (Tr. 224.) The date Q11 bears is significant because Parsons and his attorneys were to meet with the PTO the following day on October 15, 2002, as part of the reexamination process. (Ex. 1077.) It was just prior to this time period that the PTO made clear its view that the Padden patent anticipated some of Parsons' claims. (Ex. 1076.) And it was during the October 15, 2002 meeting with the PTO that Parsons advised the examiner that Padden was no longer relevant because he would provide evidence that his invention predated Padden. (Ex. 1077 at 2.) Shortly thereafter, he filed his Rule 131 declaration with Q1 attached. (Ex. 1079.) This evidence, according to the defendants, suggests that Parsons created Q1 sometime between May 20, 2000, and October 14, 2002, with the more likely date being just prior to October 14, 2002.

ASP does not dispute the physical evidence upon which Robillard's opinion rests. It concedes that Q1 bears the imprint of Q2 and Q6, and that Q11 bears the imprint of Q1 and Q2. Instead, ASP attacks the assumption underlying Robillard's opinion—namely, that Parsons drew his sketches on graph paper fixed in a pad. ASP contends that Parsons did not make drawings on a fixed pad of paper. To the contrary, Parsons testified that he never sketched on a pad:

A: I don't use pads for sketching. I use individual pieces of paper.

Q: Why don't you use the full pad?

A: It's thick. It doesn't — I just can't position it. It just — it — I don't know. It's hard to explain, but it just doesn't work for doing drawings where you're turning a board and you're trying to get at things and you're looking at them. And it's just it's a creative process. It's not just a wrote [sic] process. For me it just doesn't work.

(Tr. 539-40.) Parsons also testified that he usually did his sketches at his home on weekends or holidays so as to minimize distractions. He testified that he would often take old conception sketches home with him for ideas on what features to incorporate in the new product. (Tr. 541.) It was then his custom to take out several loose drawings and use some of them as backers, or cushions, underneath the drawing he was working on. He kept them in alignment by placing them on a drawing board that he used before he remodeled his office and replaced his old desk. (Tr. 535.) Although Parsons denied any specific recollection of the process he used in creating Q1, ASP argues that the customary way in which he drew his sketches reasonably accounts for the indentations on Q1 and the other sketches that were analyzed.

In fact, ASP argues that its explanation is more reasonable than the defendants' since the defendants' explanation fails to account for the fact that within the sequence set forth above Q6 (2000) is indented onto Q2 (1999), which under defendants' theory would mean that Q6 was created before Q2. ASP notes that this would mean that Parsons also falsified the date on one or both of

those sketches, which, ASP argues, makes no sense because he had no reason to do so. As further support for its theory, ASP introduced some forty-eight additional sheets of paper, including thirty-four with sketches and fourteen completely blank, all but three of which ASP produced to the defendants after the court granted their motion for a separate trial on the issue and only weeks before the trial was to begin. ASP argues the ESDA analysis of these sheets confirms Dr. Parsons' testimony that he uses loose sheets of paper, including previous concept sketches, as backing when he draws.

I note at the outset that Parsons' explanation for the indentations of later-drawn sketches on Q1 does not seem credible. His explanation as to why he would use his earlier conception sketches as backing paper or why such documents would even be on the same desk together simply does not make much sense. He claimed that he would sometimes take drawings home with him for inspiration or for ideas to incorporate in new projects he was working on. These older drawings would presumably have some relationship to the invention he was considering at the time. Yet there is no real explanation for why Parsons would have had Q1 on his desk in 1999 and 2000. There is no dispute that the Sapphire was essentially complete before Parsons drew Q2 or Q6: the CAD drawings had been done in 1998 and the product was essentially in final form. Thus, if the Sapphire light was in final form by 1998, why would Parsons have brought his *initial* conception sketch of the flashlight drawing home from the office in 1999? By 1999 the development process was well beyond Parsons' initial conception of the Sapphire, and he presented no plausible reason for the drawing's presence on his drawing table at that time. This is doubly true for the drawing he made in 2000. Q6, a lamp holder, was drawn on top of Q2 (a duty knife) and Q1 (flashlight), and he never explained why he would have had Q1 or Q2 on his desk in 2000.

But wholly aside from its implausibility, there are several more serious problems with ASP's argument that its explanation provides a more reasonable account of the indentations of later-dated sketches that appear on Q1. In view of the importance of the issue for all of the parties, I will address them in some detail.

1. Shifting and Inconsistent Explanations

The first difficulty with ASP's explanation of the presence of indentations of later-dated sketches on Q1, apart from its implausibility, is that it was late in coming and is inconsistent with Dr. Parsons' earlier description of the process he used to create his concept sketches. When he was asked at his June 27, 2006, deposition how he went about making a sketch, Dr. Parsons made no mention of a drawing board or getting out old sketches to use as backing. He simply stated: "I take a piece of paper, put it on a desk, draw it, put it in a plastic sheet protector, and put it in the book." (Tr. 610.) Parsons went on to explain that sometimes, as in this case, he immediately sends copies of the sketch to the ASP employees working on the project and that, sometimes, if he is looking for materials, it will go into a file for materials. (*Id.*) But there is no mention of the process he described at trial, including pulling out his previous concept sketches, placing them on the desk in front of him, and then arranging them on a drawing board, along with other sheets, as a cushion for the sketch he intends to draw. It was only when the defendants discovered the impression of Q2 on Q1 that the idea of using concept sketches of unrelated products as backing for new sketches was put forth. It was also at that point that Q6 was first produced. Even then, the explanation of how the pages were kept in alignment was significantly different from the one offered at trial.

When Robillard and Erich Speckin, an earlier defense expert, first examined Q1, Q2 was the only sketch impressed on Q1 that they were able to identify. On September 26, 2007, Bonnie

Schwid, a board-certified forensic document examiner and ASP's original expert, submitted her rebuttal report in which she agreed with the defense experts that Q1 and Q2 were most likely from the same pad of graph paper: "It is my professional opinion that the cut marks and relationship of the lines on the paper of the 14 June 97 document and the 20 Feb 99 document are in alignment, indicating that they were probably taken from the same pad of graph paper." (Ex. 1157 at 2.)

Schwid also stated, however, that this did not mean that they were fixed in the pad when the drawings were made. Noting that Robillard and Speckin had also pointed out impressions from "an unknown origin" on both Q1 and Q2 in their reports, Schwid disclosed that these impressions had come from Q6, a document with an even later date of May 20, 2000, which appeared to have come from the same pad. The discovery of this document suggested to Schwid that "Dr. Parsons makes new drawings on top of older drawings." (*Id.*) As to why the impressions appeared to be in perfect alignment, Schwid offered the following:

The fact that the documents do not shift when the drawings are made on top of one another is probably due to the fact that Dr. Parsons uses clips to secure the documents, as represented to me. The clips do not leave a mark in every case, as shown by the test documents submitted.

(*Id.*) Parsons had apparently furnished Schwid with the clips he used and several sheets of blank graph paper so that she could demonstrate how the papers were kept in alignment after being removed from the pad. (Exs. 1052, 1053.) She initially found the use of such clips provided a plausible explanation of how Parsons maintained the pages in registration and alignment as he sketched a new drawing. However, Schwid later recanted her opinion at her deposition after the defense experts detected clip marks on all of her test papers. (Tr. 417-18.)

At that point, ASP retained a new expert, Emily Will, and came up with a new theory—that Parsons had used a drawing board to keep the papers in alignment. Even then, the idea of a drawing board appears to have originated with Will and not Parsons. Without ever discussing the matter with Parsons, Will suggested to ASP’s attorneys that a drawing board might hold papers in alignment without leaving marks. (Tr. 748.) In fact, despite having published an article entitled “Good Standards in Document Examination” in which she explicitly notes the importance of finding out everything possible about the circumstances under which a questioned document was prepared, Will never spoke with Parsons about how he prepared Q1. (Tr. 751-52; Ex. 1155.) Nevertheless, the defendants heard for the first time at trial Parsons’ description of his usual practice of using a drawing board when he drew his sketches. The drawing board Parsons claimed to have used was not presented since it had been thrown out years earlier, and no other witness who had seen him using his drawing board was offered to corroborate his testimony. The only other witness with knowledge of Parsons’ work habits and who was asked about the drawing board was Lawrence Hawkinson, who, as ASP’s creative consultant during the relevant time frame, met with Parsons an average of four times per week at his office, home, or at a restaurant. Hawkinson testified that Parsons made his sketches on graph paper from a pad and that, when completed, he placed them in a plastic sleeve. Hawkinson testified that he had never seen Parsons use a drawing board. (Tr. 82-84.)

This evidence, taken as a whole, demonstrates that ASP has offered shifting, inconsistent, and uncorroborated explanations to account for indentation of the later sketches on Q1. As such, the evidence undermines the credibility of the explanation offered by Parsons for the first time at trial.

2. String of Illogical Coincidences

A further difficulty with ASP's version of events is that it requires belief in the occurrence of too many distinct coincidences. Specifically, as set forth below, if Q1 was actually drawn in 1997, it would mean that Parsons brought together a series of completely unrelated documents on three separate occasions. And in each of these occasions, the documents were held in place in the same order with the same orientation and in registration and alignment.

ASP's theory, as testified to by Emily Will and Parsons himself, is as follows.⁵ Long after he drew Q1, Parsons used it as a backing cushion for other drawings (Q2 and Q6), which explains why it has impressions of newer drawings on it. Q1 itself made an impression on a 2002 document (Q11), and Q11 is the only document with an impression of Q1 on it. Q1's impression on Q11 is strong and complete, whereas Q2's impression on Q11 is faint. Thus, under ASP's theory, in 1997 Parsons must have drawn Q1 on top of the blank sheet of paper that would become Q11 five and one-half years later, leaving a strong impression. He then removed Q1 and, presumably after copies were mailed, or faxed, to the two employees working on the project, kept it together with Q11 (a blank sheet) and later used them both as backing underneath Q2 in 1999, at which time Q2 left an impression on Q1 and a faint impression on Q11. Then, when drawing Q6 in 2000, Parsons again retrieved Q1 and Q2 to use them as backing paper. At this time, however, Q11 (still a blank sheet) had apparently disappeared and was not used again until Parsons drafted the baton case in October 2002. Finally, each time he brought these loose pieces of paper together, he placed them so that

⁵ Will has offered only various theories to explain the document's creation, including the theory that the document was backdated. She concluded that the documentary evidence alone was inconclusive as to the actual date of Q1. Parsons does not have direct recollection of how Q1 was actually created, but he has testified about his general drafting procedures.

each page, even the blank one, was front side up, identically oriented, and held together in registration and alignment. (Tr. 224.)

Although the convoluted nature of the above sequence speaks for itself, it requires some explanation to realize that the above sequence involves several implausible coincidences. Under Parsons' theory, Q1 and Q11 first came together in 1997 by chance when he drew Q1 and happened to select the blank sheet Q11 to use as backing paper. Thus, the order in 1997 is **Q1-Q11**. Then, in 1999 Parsons sat down at his table to draft a representation of a duty knife (Q2). Before he begins drawing the knife on Q2, he takes an existing two-year-old drawing, Q1, as well as the still-blank sheet of paper that would eventually become Q11 three years later. By placing Q1 and Q11 underneath Q2 (the order is **Q2-Q1-Q11**⁶) Parsons thus imprints the knife drawing on Q11, and this explains why Q11 has impressions of both Q2 (the knife) and Q1 (the Sapphire light). It also explains how Q2 becomes impressed onto Q1. This is the first major coincidence: Q1 and Q11 are the two sheets that randomly came together in 1997, and even though they have nothing to do with one another Parsons brought these same two documents (a drawing and a blank sheet) together again in 1999. Not only did Parsons reunite these two strangers, but he used them in the same order with Q2 on top, and placed them face up in registration with the same orientation.

The second major coincidence occurs in 2000, when Parsons decides to draw the lamp holder, Q6. For backing, he retrieves a drawing of the duty knife (Q2) drawn in 1999 and the Sapphire light (Q1) drawn in 1997. The order is **Q6-Q2-Q1**. Once again he would have retrieved,

⁶ As both experts concluded, the logical order of the stacking of the documents would be Q6-Q2-Q1-Q11. Q1 left a strong impression on Q11, whereas Q2's impression on Q11 was much weaker. Thus, when Q2 was drawn in 1999, Q11 would have been the second document underneath, while Q1 was directly underneath.

by sheer chance, the exact same two sheets that came together in 1999 when Q2 was drawn, and again he has used these two sheets *in the same Q2-Q1 order* as he originally did and, along with Q6, places them in perfect registration and with the same orientation they would have if fixed in a pad. To summarize: Q1 was on top of Q11 in 1997 and then again in 1999 when Parsons drew Q2; Q2 was on top of Q1 in 1999, and then both were reunited when he drew Q6 on top of Q2 (a knife drawing) and Q1 (the flashlight). And on all three occasions, each page was in registration and with the same orientation.

Ultimately Parsons' explanation requires us to assume the occurrence of these several coincidences: though none of the documents have anything to do with one another, on two separate occasions Parsons reunited two completely unrelated documents to use them as backing. Two more coincidences emerge when we consider that these unrelated documents were used in the same order and were facing the same way. Of course if a drafter is using scratch paper as backing in the manner Parsons suggests he was, it is not surprising that the sheets so used would have nothing in common with each other—any sheets lying around might be called into duty. It might even be chalked up to coincidence if the same two unrelated pieces of paper were used as backing on another occasion. But here we are presented with *two* purportedly random associations (Q1 and Q11, and Q2 and Q1) being repeated, and in each case the documents are not just reunited but reunited in the same sequence (a third coincidence) and same orientation (a fourth). This suggests nothing if not a pattern, and Parsons has not satisfactorily explained how or why this would occur at random. For instance, when drawing the duty knife in 1999, why would he retrieve a flashlight drawing and a blank sheet of paper—the very same two unrelated sheets that he had brought together in 1997? And in 2000, when drawing the lamp holder, why would he use as backing a three-year-old

flashlight drawing and a drawing of a knife? This repeated bringing-together of totally unrelated documents places a great strain on the house of cards, which ultimately causes one to search for a more viable theory explaining how Q1 was drawn.

In addition to the coincidences described above, ASP's theory requires us to account for the unusual role played by Q11. In Parsons' telling, Q11 comes and goes—it is a blank sheet of paper used as backing in 1997, then disappears for two years, then reprises its role as blank backing paper in 1999. Subsequently, it disappears for three years until the baton case is drawn on it.

Parsons did not have a plausible explanation for this sequence of events. He testified that he would make drawings and then store them in protective plastic sleeves, a practice that does not account for how he would have retained the blank sheet of paper Q11 and used it repeatedly. Emily Will weakly suggested that Q11 (a blank sheet) was stored along with Q1, and that this explains both where Q11 went as well as why Q1 and Q11 came together on two separate occasions. This is merely speculation, however, and does not comfortably fit with Parsons' general description of how he handled his drawings or his more specific testimony that in this case he immediately made copies of Q1 to send to the two employees in the ASP Lighting Division. The fact that Q1 was immediately copied suggests that it was physically separated from Q11 and thus would have to be brought back together in alignment with the same orientation in order to receive the indentation from Q2 when it was drawn twenty months later.

ASP also argues that Q11's itinerant existence is corroborated by the fact that Q1's impression on it is slightly shifted in places. In other words, because the two documents do not line up perfectly, they could not have been fixed together in a pad. Yet the shifting occurs only in two limited areas, which reveals only that the shifted areas may not have been drawn while Q1 was in

a fixed pad. And under the defendants' fraud theory, Q1 was ripped out of the pad (to be sent to the PTO), and it is thus not surprising if Parsons made a few minor amendments to Q1 after it was torn out.⁷ Accordingly, the small amount of shifting on Q1's impression on Q11 does not help the plaintiff's cause, and all we are left with is a document known as Q11 whose existence and function cannot be accounted for under Parsons' theory.

3. The Timing of Q11

I also accord some weight to the fact that Q11 is dated October 14, 2002. As noted above, this date is meaningful because Parsons and his attorneys were to meet with the PTO on October 15, 2002, as part of the reexamination process. It was during this time period that the PTO made clear its view that the Padden patent anticipated some of Parsons' claims. During the meeting with the PTO, Parsons stated that he would provide evidence that his invention predated Padden and, on November 19, 2002, he filed his Rule 131 declaration with Q1 attached. Thus, the October 14, 2002, date of Q11 is fully consistent with the fraud theory because it allows for the possibility that Q1 was created at any time prior to October 14, 2002. In contrast, if Q11 had been dated, say, 1999 (or even 2001), then the impressions made by Q1 would have been traceable to an earlier time period in which the need to create a backdated document was not so palpable.

Moreover, because the most logical time to draft a fraudulent Q1 was the fall of 2002—soon before Q11 was drafted—it makes perfect sense that Q11 is the only document with an impression of Q1 on it. The fact that Q1 imprints only on Q11—rather than any other documents—links the

⁷ Indeed, since Parsons would have known that his patent would rise or fall on this document, it is not surprising that he may have felt the need to amend it. It certainly contains greater detail than most of the other conception sketches, which, as discussed below, provides further support for the defendants' claim that it is a fraud.

two documents together temporally. Thus, the defendants' theory is quite simple: Q1 did not impress upon Q2, Q6, or any other documents because it was directly above Q11 the entire time *and was not drafted until 2002*. In contrast, Parsons' theory requires us to believe that these two documents came together repeatedly even though Q1 was drafted in 1997 and Q11 in 2002.

4. The Defendants' Version is Far More Reasonable

Above I have focused largely on why I find Parsons' explanation implausible. But because the defendants shoulder the burden of proving inequitable conduct by clear and convincing evidence, it is important that they have a plausible theory of their own. In my view, defendants' theory that Q1 was drawn in 2002 and then backdated seems refreshingly simple: Q11 does not lead such a mysterious existence, Q1 and Q11 were drafted around the same time, and no coincidences in the relationships between Q1-Q11 and Q2-Q1 need to be accounted for. Instead of holding that the relevant documents were all loose and came and went at Parsons' whim, defendants' theory is that Parsons simply used one of the many pads of graph paper he kept in his home or office and sequentially, over several years, drew the sketches on the pages designated Q6, Q2, Q1 and Q11 when they were fixed together in that Q6-Q2-Q1-Q11 sequence in the pad.

The greatest obstacle to the defendants' theory is Q6 because its 2000 date is out of sequence. The defendants note, however, that the date on Q6 does not appear on either Q2 or Q1. (Def.'s Reply at 7.) See Exhibit 1134. The fact that the date and signature on Q6 did not make impressions on the other documents means it was likely dated after it was taken out of the pad. Thus, the sketch itself could have been drawn prior to Q2 and Q1 but not given the 2000 date until much later. The fact that Q6 was not produced until after the defense experts had issued their reports describing their findings with respect to the indentation of Q2 onto Q1 means that Parsons

would have been aware of the significance of the dating sequence and, if he had not already signed and dated Q6, he could have added a date that would confuse the issue. It may also be that Q2 was given a false date for reasons that are simply unknown. While the idea that Parsons, or any other party, would intentionally undertake such action is not one I would normally entertain without strong evidence to support it, the fact that the totality of evidence in the case supports the finding that he engaged in precisely the same kind of conduct before the PTO makes it far more plausible than it might otherwise seem.

In any event, this theory accounts for all four of the documents. First, because the date on Q6 (2000) is out of “logical” chronological order and was not indented on the older sketches, it was likely signed and dated after it was drawn. As for Q11, it is much easier to believe that Q11 was fixed beneath Q1 and Q2 than it is to believe that Q11 served as backing paper for Q1 in 1997, then disappeared, and then reemerged in 1999 as backing for Q2, and then disappeared again for three years. This theory also easily explains how Q2 impressed upon Q1 and Q11 and why there was no evidence of off-set or smudging on the back of any of the drawings. Because the sketch was drawn on the top page of the pad, the pages beneath it were blank at the time and there was nothing to smudge or transfer to the back of the page above it. (Tr. 185-887.) Finally, the defendants’ theory obviates the need to believe in the multiple coincidences that Parsons’ theory requires. Instead of having to believe that Q1 was used on top of Q11 *twice* and Q2 was on top of Q11 *twice*, we need to believe only that they remained fixed together throughout this period.

In addition to explaining the evidence we have, this theory also explains the *absence* of certain evidence. For instance, if Q1 were truly the oldest document, it could reasonably be expected to have made impressions on multiple other documents. Yet the only impression Q1 made

is on the 2002 document Q11. If Parsons routinely used multiple sheets of backing paper, where are the other sheets upon which Q1 made impressions? Without any evidence that Q1 made any impressions apart from the impression on Q11, it is reasonable to believe Q1 and Q11 (which itself left no impressions) were the newest documents and shared a temporal proximity.⁸

5. The Failure of ASP's Forensic Evidence

Finally, the forty-eight additional pages that ASP introduced to buttress Parsons' testimony concerning how he made his sketches were wholly unpersuasive. Among the forty-eight additional pages, ASP pointed to only one example in which a later sketch bears impressions from an earlier sketch. ESDA analysis showed that an indentation of Q9, which depicts a foam-cutting knife edge protector bearing a date of December 27, 1997, was made on Q7, which depicts a key knife and bears a date of December 26, 1996. (Ex. 162 at 6.) Unlike the sequence involving Q1, Q2, Q6, and Q11, however, the impression of Q9 is on the back side of Q7 and is at a 180-degree orientation. (Ex. 162 at 7.) In other words, when Q9 was drawn, Q7 was placed beneath it face down and at a 180-degree angle. Far from supporting ASP's contention that Parsons' habit of using previously drawn sketches as backing for new drawings reasonably accounts for the nearly perfect alignment and identical orientation of the indentations in the Q6-Q2-Q1-Q11 sequence, the indentations of Q9 on Q7 suggest just the opposite—that when sheets are not fixed in a pad, perfect alignment, registration, and identical orientation are unlikely. In addition, the fact that on this one occasion Dr. Parsons had an earlier sketch (Q7) before him when he drew the later sketch (Q9) also falls far short

⁸ While the evidence strongly suggests that the relevant documents were fixed together in a pad when the sketches were made, I do not base my finding that the date on Q1 is false on that fact alone. I am not convinced that the sheets of graph paper would have to be fixed in a pad in order to create the impressions on Q1 from Q2 and Q6, although it would have taken some care and effort to create such impressions if they were not fixed in a pad.

of establishing that he had a practice of using previous unrelated sketches when creating a new one. A knife, as depicted in Q7, at least bears some relation to a knife holder, as depicted in Q9. The same cannot be said of a miniature flashlight (Q1) and a knife (Q2).

Of the remaining pages submitted by ASP, one is a sketch dated November 24, 1996 (Q12), which was indented onto another sketch dated November 25, 1996 (Q5), just as one would expect if they were affixed to the same pad and drawn in chronological sequence. (Ex. 162 at 8-9.) Indentations of Q12 and Q5 also appeared on Q52, a blank piece of graph paper that was loose and not affixed to a pad when produced by Dr. Parsons. The only forensic evidence offered as to the remaining sheets was of two blank sheets of graph paper (Q39 and Q40) containing indentations of a double cuff case with no date disclosed and another blank sheet (Q44) containing indentations of handwriting. Overall, the additional evidence introduced by ASP is more noteworthy for what it fails to show than what it does show. ASP introduced thirty-eight concept sketches. If Dr. Parsons had a practice of using his older sketches as backing for new ones, where is the evidence? Where are the other examples of a newer sketch being indented upon older ones with the indentation perfectly aligned with the original sketch, perfect registration of the pages over one another and identical orientation of the page on which the indentation appears?

Consideration of the indentations on Q1 and the related documents, and of the inconsistent and implausible explanations offered by ASP provides strong evidence that Q1 is fraudulent. That conclusion is only strengthened by consideration of the extrinsic evidence, to which I now turn.

B. EXTRINSIC EVIDENCE

Both parties argue that the weight of the evidence extrinsic to Q1, specifically, the testimony of those individuals involved in the design of the Sapphire and the contemporaneous documents

relating to the project, clearly supports their respective positions. In addition to Dr. Parsons, there were two other individuals listed as inventors on the '018 patent: Donald A. Keller, who held several other patents on flashlights, including the Kel-Lite, a durable aluminum flashlight originally designed for use by law enforcement officers; and W. Clay Reeves, since deceased, an engineer who prepared the computer-aided design (CAD) drawings for the Sapphire. Lawrence Hawkinson, ASP's creative consultant at the time, also created photorealistic illustrations of the light on his computer. In support of their contention that the date on Q1 is false, the defendants point to the testimony of Hawkinson and Keller, each of whom put the start of the project in January 1998, and to the absence of any documentation showing any work being done on the project before that time. The defendants also contend that Q1 depicts design choices that were not made until after work on the project was well under way and that could not have been known by Parsons in June 1997.

ASP, on the other hand, discounts Hawkinson's testimony as that of a disgruntled former ASP consultant upset at losing 85% of his income when Parsons terminated the relationship. ASP argues that Hawkinson was merely a graphic designer who had no input into the design of the Sapphire and was brought in only when development was almost complete and the product was ready to be marketed. As to Keller, ASP claims that his testimony actually supports ASP's claim that the project began shortly after Parsons drew Q1 in June 1997. Keller initially testified that he first started work on the Sapphire project a few months after his position changed from consultant to ASP to full-time employee. Based on expense reports and cancelled checks showing that ASP began paying Keller a salary and enrolled him under its employee health insurance plan beginning in March 1997, ASP argues that Keller's estimate that he started work on the project a few months after he became a full-time employee puts the genesis of the project "at the same time as the

Sapphire sketch, June, 1997.” (ASP Opening Post Trial Br. at 2.) ASP contends that Keller’s testimony concerning the completed CAD drawings of the Sapphire further supports the June 1997 conception date. For this argument, ASP relies upon detailed CAD drawings of the Sapphire, all indicating they were drawn by Reeves on January 15, 1998. (ASP Opening Post Trial Br. at 2; Ex. 77.) Keller testified that the CAD drawings for the Sapphire were created over a six- to eight-month period. ASP argues that counting backward from a completed set of CAD drawings dated January 15, 1998, corroborates the conception date of June 14, 1997.

ASP also offered evidence that Parsons had long been interested in developing an LED flashlight and that he had obtained the two items that provided the inspiration for the Sapphire more than a year before Q1’s date of June 14, 1997. Parsons testified that he obtained the SINOX luggage lock that became the inspiration for the shape of the Sapphire “sometime in 1995,” and that Hawkinson brought the LED Photon Microlight to his attention shortly after he (Hawkinson) purchased three samples at Recreational Equipment, Inc., on May 31, 1996. (Tr. 558-59; Ex. 46.) In January 1997, Parsons wrote to the company holding the patent to the Photon Microlight, asking if it would consider selling the rights to the invention to ASP. (Tr. 559; Ex. 47.)

As further evidence of its June 1997 conception date, ASP points to a card holding samples of various sized dome plates of the type that became part of the switching mechanism for the Sapphire, and an ASP document entitled Lighting Products Division, which lists “LED (Squeeze Lite),” a name given to the early prototype of the Sapphire, as a future product. The card holding the sample dome plates is stamped with the date March 15, 1997, and the parties stipulated that the analysis of ASP’s computers shows that the Lighting Products Division sheet has a creation date of March 10, 1997. (Exs. 49, 48.) Parsons testified that Keller brought the sample dome plates with

him when they met at ASP's offices in Appleton in March 1997 to discuss Keller's change to full-time ASP employment, and that they also discussed various projects at that time, including the "LED Squeeze Lite" listed on the Lighting Products Division sheet. (Tr. 560-63.)

Finally, ASP points to a feature sheet that describes many of the details included in Q1, and that Parsons claims he prepared for a meeting with ASP's patent attorneys that took place on December 4, 1997.⁹ (Ex. 51.) ASP also notes that Hawkinson was instructed to prepare promotional materials in early January; that ASP presold the Sapphire light to Kroll International, its largest customer, at a trade show in Las Vegas in late January 1998; and that a prototype of the Sapphire was created by March 1998. "None of this could have occurred," ASP argues, "had the Sapphire not been conceived well before November 3, 1997." (ASP Opening Post Trial Br. at 3.) In sum, ASP contends that the extrinsic evidence irrefutably establishes a conception date consistent with the date shown on Q1.

Of course, the real issue before me is not when Parsons actually conceived the Sapphire, but whether he intentionally submitted a false document to the PTO to establish a conception date. In other words, even if I were to conclude that Parsons had the idea for the Sapphire before Padden filed his application, it does not necessarily follow that Q1 is legitimate. A person could fabricate evidence to prove what actually did occur. That is not what I find occurred here, however. Based on my consideration of the evidence, I conclude that the date on Q1 is false, and work did not even begin on the project until January 1998.

⁹ This document, also referred to by the parties as Document 5560, takes on added significance in the case because the defendants claim, based on forensic analysis of ASP's computer, that it was not created until March 21, 2000. This issue is discussed in more detail below.

1. The CAD Drawings

The strongest argument ASP offers in support of its contention that work on the project must have occurred earlier than January 1998 is based on the detailed CAD drawings prepared by Reeves and bearing a date of January 15, 1998. (Ex. 1084.) If the CAD drawings had in fact been completed by that date, it would strongly suggest that work on the project must have begun much earlier. The argument fails, however, because January 15, 1998, represents the date the drawings were begun, not the date they were completed. This fact is clear from the drawings themselves, the absence of any evidence of earlier CAD drawings, the testimony of those involved in the project, and the other documentary evidence presented at trial.

A review of the many CAD drawings received as evidence reveals that each page contains a box on the lower right side that contains various items of standardized information, including a notice of confidentiality, the tolerances and scale for the drawings, the ASP registered tradename followed by the words "Lighting Products a division of Armament Systems and Procedures," and several boxes for entry of information concerning the application for the drawing, the number, size, revision, author, and date. All of the CAD drawings for the Sapphire list the initials for W. Clay Reeves as the individual who created the drawing, and most indicate they were drawn on January 15, 1998. (Ex. 1084.) Parsons testified that it would have been impossible to complete all of the drawings dated January 15, 1998, in a single day or even in fifteen days. (Tr. 657-58.) In fact, according to Parsons, although he claimed that work started on the project shortly after he completed Q1, it was extremely difficult to get them done by January 15, 1998. (Tr. 656.)

Yet, despite Parsons' claim that the drawings bearing the date January 15, 1998, were completed drawings representing months of work on the project and presumably hundreds of

revisions of the drawings, he was unable to point to any drawing relating to the project bearing an earlier date. (Tr. 634-35.) Although ASP produced over 30 CDs of Reeves' work on the project containing tens of thousands of documents, it failed to produce one drawing at trial showing an earlier creation date. (*Id.*) This is all the more surprising since Reeves, like Keller, had become a full-time employee of ASP by April of 1997 and performed his design work at ASP's Lighting Division office in Texas using computers and engineering software, including a CAD program, purchased by ASP. (Keller Dep. 200:01-25¹⁰; Tr. 530; Exs. 62, 1056.) Parsons testified that he would speak by telephone with Keller and Reeves "once a day, twice a day, three times a day," and that Keller and Reeves would fax documents, including CAD drawings, to him in Appleton. (Tr. 531-32.) Despite the amount of work Parsons said would be needed to create the kind of detail shown on the drawings bearing the January 15, 1998, date, ASP offered no CAD drawings bearing a date earlier than January 15, 1998, nor did it offer any electronic evidence that such drawings ever existed. This lack of evidence takes on added significance when one considers Parsons' substantial experience with the patent process and the many other documents produced in the case. As the agenda for Parsons' December 4, 1997, meeting with his patent attorneys shows, ASP had more than twenty different patent matters for which case numbers had been assigned pending at the same time CAD drawings were being created by Reeves and faxed to him for his consideration or approval. (Ex. 1159.) By November 2002, when he submitted his sketch to the PTO, he was a named inventor on 73 different patents. (ASP Opening Post Trial Br. at 28; App. B.) In light of this

¹⁰ Keller's testimony was offered in the form of two video depositions, excerpts of which were placed on two DVDs. (Exs. 1156-1, 1156-2.) The references are to the corresponding transcripts provided by the parties.

experience, Parsons must have understood the importance of documenting the development of an invention. Yet, he retained none of the earlier CAD drawings of the Sapphire. On the other hand, he saved all of the receipts for the office furniture and supplies ASP purchased when it set up its division office in Texas in September 1997, as well as the expense reports and supporting documentation submitted by Reeves and Keller for 1997, long past when they would have been needed for tax purposes. (Exs. 1056, 1093.)

The only logical explanation of the absence of any evidence of earlier drawings is that they did not exist. Reeves began work on the CAD drawings for the Sapphire on January 15, 1998, and entered that date in his computer, along with the other standard information, at that time. Although it appears he entered new dates for drawings created and revisions made after the parts for the first prototype were ordered in late March and as the project developed, the January 15, 1998, date remained the default date that appeared on the page whenever he worked on CAD drawings for the project unless he manually changed it, at least for the first set of drawings. This explains not only the absence of any evidence of earlier CAD drawings; it also explains why revisions that were made months later appear on CAD drawings still bearing the January 15, 1998, date. For example, exhibit 77, which, according to ASP, depicts the stage of development of the project as of January 15, 1998, shows a coil spring providing the tension for the retention clip on the light frame. Other CAD drawings, however, show that the design initially called for a leaf spring. (Ex. 1084 at 0017.) The coil spring was added as a revision on April 21, 1998. (Ex. 1084 at 0016.) The fact that Exhibit 77 shows a coil spring is evidence that its January 15, 1998 date must be the date Reeves began the drawing, not when it was completed.

2. Testimony of Hawkinson and Keller

The finding that January 15, 1998 is the date the CAD drawings were started, as opposed to when they were completed, also receives support from the testimony of Hawkinson and Keller, and the other documentary evidence. In Hawkinson's telling, aided by his personal notes and records, the project lay dormant from the time Hawkinson showed Parsons the Photon Microlight he had purchased in late May 1996 until shortly before January 1, 1998, when he met with Parsons at an Appleton restaurant to discuss it. Parsons showed Hawkinson the SINOX lock and asked him whether he thought it would be a good shape for the light. There was some discussion over whether the opening in the lock should be solid or have a functional clip that would open and close. Parsons thought a functional clip would be expensive to produce, but Hawkinson thought it would be a good feature from a marketing standpoint. (Tr. 89-90.) In any event, Parsons gave Hawkinson the lock, and it was agreed that Hawkinson would "start a visual exploration of what this light might look like." (Tr. 91.) Hawkinson was not provided a copy of Q1 or any other materials, such as CAD drawings, to aid him in his effort, nor was he told that Keller and Reeves had already been working on the project. As far as he knew, his was the first work done on the project. (Tr. 92.)

Shortly thereafter, using the luggage lock and Photon Microlight as models, Hawkinson created a series of photorealistic images of the proposed device on his computer. Hawkinson's illustrations, which, it should be noted, were not produced by ASP in the course of discovery, bear creation dates starting on January 1, 1998. (Exs. 1003, 1004, 1006, 1007.) Taking the evidence as a whole, it is clear that they constitute the first effort to create a visual representation of what the Sapphire would look like. In fact, Keller specifically testified that he and Reeves did not start work on the project until Parsons sent them copies of Hawkinson's illustrations:

Q. Prior to sitting down at the computer, did the two of you have an idea as to what it was you wanted to design?

A. Yeah, based on the padlock and the conceptual drawing that we got from Larry, yes.

(Keller Dep. 215:03-07.) Later on in the deposition, Keller was again asked whether he and Reeves had seen Hawkinson's images before they began their own work on the Sapphire project:

Q. Did you begin your work on the Sapphire before or after you received images from Mr. Hawkinson?

A. After. Well, I can't say for sure. Again there's that time. We received the padlock. No, it was after we received the images because we had to have some kind of a format to get started with, so like I say, we got that padlock, and we either got the images at the same time or within a day or two afterwards, so that's when we would have started.

Q. So is it fair to say that you didn't begin your work on the Sapphire until after you received the images from Mr. Hawkinson?

A. Yes, I think that's a good statement.

(Keller Dep. 248:07-20.) Parsons appears to have admitted as much in a February 2002 deposition when he was asked to describe Clay Reeves' role in the design:

Q. Did Clay Reeves play any role in what the final design looked like?

A. Well, I think in terms of the design, geometric shape, the button switch cover, the key lock, those were sent in. But they were translated into final production drawings by Clay and therefore did he have input into it, absolutely, which is why he is listed on the patent.

Q. You said various things were sent in. What did you mean by that?

A. What I provided to him.

Q. What did you provide Clay?

A. Provided him in essence the picture of what the light should look like.

Q. Was that a single picture, multiple pictures?

A. Multiple pictures.

Q. Were there differences between those multiple pictures?

A. Not in the final design, no.

Q. Why did you send them – why did you send them multiple pictures if there was no difference?

A. Well, because everything has two sides. So if you have two sides, you need a picture of two sides. If you have a top and bottom, you need a picture of the top and bottom. If you have a front and back, you need a picture of a front and back. For him to be able to do the drawings, he needed to see what the light would look like 360 degrees.

(Tr. 627-28.) Although the photorealistic images created by Hawkinson do not depict the light from 360 degrees, it does not seem likely that Parsons would have described Q1 as “multiple pictures.” Other than Hawkinson’s illustrations, no other multi-pictorial representation of what the light was intended to look like was offered in evidence.¹¹

In arguing for the June 1997 conception date, ASP emphasizes Keller’s testimony in his July 15, 2005, deposition where he estimated that he began work on the Sapphire a few months after he became a full-time ASP employee. (Keller Dep. 61:23-62:02.) But as Keller explained, this was his estimate before he was shown any of the contemporaneous documents relating to the project or other work he performed for ASP. (Keller Dep. 197:15-19.) It is easy to see why he might have been confused as to when his employment with ASP began. Keller worked for ASP beginning in

¹¹ Like the indentation of Q1 on Q11, this testimony also suggests that Q1 was created closer to Q11’s date of October 15, 2002. If Q1 was in existence at the time of Parsons’ February 2002 deposition, the obvious answer would have been “I gave Reeves my conception sketch.” Instead, Parsons says he sent him “multiple pictures” showing “both sides.”

1996 as a consultant. (Keller Dep. 141:09-16.) ASP began paying him as a full-time employee and put him on its insurance in late March or early April of 1997, but Keller and Reeves did not have an office and worked out of their homes until September of 1997, when Keller set up the ASP division office in Texas. (Keller Dep. 201:01-08.) Finally, Keller's employment contract with ASP was signed on July 1, 1998, but had an effective date of January 1, 1998. (Ex. 1053.) In light of this evidence, ASP's argument that the start of Keller's full-time employment provides an "anchor date" for the start of his work on the project does not hold. Keller's testimony tying his work on the Sapphire project to other projects he worked on and the CAD drawings and other documents relating to those projects provides a more certain time frame.

Keller testified that work was not begun on the Sapphire project until after he and Reeves were already in their new office in Texas. (Keller Dep. 246:04-08.) Based on his expense reports for September 1997, Keller was able to determine that he moved into the Texas office in early September 1997. (Keller Dep. 245:13-246:03; Ex. 1056 (corresponding to Keller Dep. Ex. 32).) It thus follows that work on the Sapphire could not have begun until after that time.¹² This conflicts with Parsons' testimony that immediately after drawing Q1 on June 14, 1997, he sent copies to "Clay Reeves and to Don Keller because we were going to start the Sapphire" (Tr. 610), but Keller's testimony puts the start of the project even later. Keller also recalled that he and Reeves

¹²ASP notes in its motion to strike the two exhibits attached to the defendants' reply brief that the lease agreement for the office space in Texas, which it included among its exhibits but did not introduce, was actually signed on August 12, 1997. (Doc. # 385 at 9 n.3.) Although it does not affect my conclusion as to when Keller started on the Sapphire, I note that the date a lease is signed is generally not the same day the term of the lease commences. Keller's testimony concerning when he moved into the office was based on the documentation showing when the furniture, telephones and computers were ordered and/or delivered. Documents of this nature would seem a more accurate indicator of when work at the office commenced.

worked on another light project called the “N” Cell before they moved into the new office. (Keller Dep. 202:05-203:22.) The CAD drawings for this project bear dates from July and August of 1997. (Ex. 97 (corresponding to Keller Ex. 23)). Keller testified that after working on the “N” Cell, he and Reeves started work on the Tac-Lite Rechargeable, also known as the Triad. (Keller Dep. 208:02-210:02.) Among the records relating to this project are CAD drawings that indicate they were drawn on dates in August and October of 1997, with revision dates as late as December 30, 1997. (Ex. 70 (corresponding to Keller Dep. Ex. 24)). ASP purchase orders and packing slips from Visual Engineering, Inc., the company that ASP engaged to manufacture the parts used to make prototypes of its products, show that ASP was ordering parts for a Triad prototype well into January and received shipments of such parts as late as January 21, 1998. (Keller Dep. 272:01-274:01; Ex. 76 (corresponding to Keller Dep. Ex. 38) at 27-29.)

It was while he and Reeves were still at work on the Triad project that Keller states Parsons called them about the Sapphire:

Q. Now correct me if I’m wrong. I believe you testified that the Sapphire project started after the termination of the Triad project?

* * *

A. We terminated the Triad to start the Sapphire, yes.

Q. And why was that?

A. We couldn’t do them both at the same time, and we felt that Kevin wanted the Sapphire done. That was the priority as far as the product coming out. . . .

(Keller Dep. 264:18-265:05.) After reviewing the documents referenced above, Keller expressly recanted the employment “anchor date” upon which ASP bases its timeline:

Q. Do you remember that you had testified previously in your deposition that your involvement with the Sapphire project began within a few months of your full-time employment with ASP? Do you remember that testimony?

A. No, I don't.

Q. But if it's in your deposition at page 34, lines 12-20, you wouldn't disagree?

A. Well, I would disagree with the accuracy of it.

Q. You think you may have been mistaken in your prior testimony?

A. Yes, correct. With all the documents I've seen recently that recollect the dates, yes, that would have been wrong.

(Keller Dep. 196:24-197:19.) Clearly, the move to the new ASP offices in Texas, the documents showing the work on the Triad project, and the dates of Hawkinson's illustrations provide more reliable anchors for Keller's recollection as to when work on the Sapphire project began.¹³ These anchors tie the beginning of Keller's and Reeves' work on the project to mid-January 1998, a time that fits comfortably with Keller's estimate that it took about six to eight months to complete the drawings. And Keller's estimate here dovetails with the dates of the revision notes on the CAD drawings, which extend into September of 1998 when the material used for the frame was changed from Delrin to Xenoy. (Ex. 1084 at 4.)

¹³ASP also argues in its motion to strike that Keller admitted he was working on the Sapphire and the Triad simultaneously. (Doc. #385 at 8-9.) But that is inconsistent with his testimony that they stopped work on the Triad to work on the Sapphire. The various dates on the CAD drawings for the Triad referenced in Keller's deposition begin in August 1997, with the latest being January 15, 1998, the same date Reeves began drawings for the Sapphire. (Ex. 70 (corresponding to Keller Dep. Ex. 24).) While the documentary evidence from that point on shows much activity with respect to the Sapphire, *see* Exs. 76 and 1084, there is no evidence showing any work on the Triad until August or September of 1998, during what Keller described as one of the "lulls" in work on the Sapphire, when he and Reeves were able to return to work on the Triad. (Keller Dep. 301:11-18; Ex. 76 at 63-64.) This testimony is not inconsistent with Keller's testimony that once Parsons brought the Sapphire to them, they dropped work on the Triad and made the Sapphire their priority.

This is not to say that Parsons did not have an interest in developing an LED flashlight before that time. Even the defendants concede that Parsons became interested in the idea when Hawkinson showed him the Photon Microlight, shortly after Hawkinson purchased several in May 1996. As Hawkinson described it,

My involvement began with Kevin making me aware that the—ASP wanted to grow in the consumer lighting products division, and consumer products in general, and I was on the look-out for things that might fit in. I found a photon light and bought several. Gave Kevin a couple and suggested this might fit into the product line.

(Tr. 86-87.) But the fact that Parsons inquired about purchasing the rights to the Photon Microlight in January 1997 and included an “LED Squeeze Lite” on a list of future products in March 1997 is hardly evidence of a June 1997 concept date. And as to the card holding the samples of snap domes with the date March 15, 1997, stamped on it (Ex. 49), Keller denied that the date was his (Keller Dep. 195:01-02), and testified that he had ordered the samples “fairly close” to the March 9, 1998, date shown on the CAD drawing for the Snapdome Assembly for the Sapphire.¹⁴ (Keller Dep. 72:09-24; Ex. 1054 (corresponding to Keller Dep. Ex. 5)).

More noteworthy is the fact that the “LED Squeeze Lite” does not appear on the September 1997 Priority List for ASP Lighting Products. (Ex. 1114.) Parsons’ suggestion that the Sapphire project was essentially done and that “these are things to be done, not things that are done, in process” (Tr. 656), is not credible in light of the evidence showing that ASP first started ordering

¹⁴ASP also points to the May 1997 CAD drawing of a “Key Alarm,” which apparently contains an LED (Ex. 50) and Hawkinson’s photorealistic image of the proposed product (Ex. 68) as evidence that “by May 9, 1997, ASP was designing its own LED flashlights.” (ASP Opening Post Trial Br. at 7.) But Parsons testified that Hawkinson’s rendering of the device was not feasible because it did not contain a switch, and he offered no explanation as to what ASP had done with the idea. (Tr. 566.) While Reeves’ drawing appears to contain a metal band on which a company logo could be engraved, it shows little further detail and bears little resemblance to the Sapphire.

parts for a prototype of the Sapphire in late March 1998. (Ex. 76 at 30.) From the day Parsons and Hawkinson met to discuss the Sapphire in late December 1997, it was a priority for Parsons. If he had started the project when he claims, Parsons would most certainly have included it on his priority list. Other projects that were much further along, but had far lower priority, including the “N” Cell and Tac-Lite Rechargeable, or Triad, are on the list. (Ex. 97, 70 and 1114.) The only logical explanation for the fact that the Sapphire is not listed is that work had not yet even started on the project.

3. The Implications for Q1

The same evidence is devastating to ASP’s claim that the date shown on Q1 is authentic. This evidence makes clear that when Keller and Reeves started working on the project in January 1998, the only internal components that had been decided upon were the batteries and the LED. According to Keller, “everything else we developed as we went.” (Keller Dep. 215:15-16.) Yet Q1, like the CAD drawings ASP claims were completed by January 15, 1998, depicts design choices that Hawkinson and Keller both testified were not made until much later. More important, ASP’s own documents corroborate much of their testimony.

The clearest example of Parsons’ including in Q1 features of the Sapphire not added until later is the coil spring already mentioned in relation to ASP’s argument concerning the date on the CAD drawings. As noted above, and as testified to by Keller, the initial design called for a leaf spring to provide the tension for the retention clip on the frame of the light. (Ex. 1084 at 0017.) In fact, the first Sapphire prototype was built with a leaf spring. (Ex. 76 at 32-33.) But when the designers got the early prototype back in the first part of April, they were dissatisfied with the function of the leaf spring and switched to a coil spring. (Keller Dep. 254:16-255:02.) The CAD

drawing confirms that the revision to a coil spring was made on April 21, 1998. (Ex. 1084 at 0016.) Yet Q1, which Parsons purports to have drawn more than ten months earlier, shows a coil spring for the retention clip. (Ex. 8.)

The very fact that Q1 includes a functional clip that opens and closes is inconsistent with Hawkinson's testimony concerning their later discussion of the feature just before Hawkinson created his images. According to Hawkinson, when they first discussed the device in late December 1997, Parsons thought including moving pieces in the design would add too much to the cost of production and wanted to make the feature solid. It was Hawkinson who wanted to make the clip functional because he thought it would make the light more marketable. (Tr. 89-90.) Yet Q1, purportedly drawn by Parsons some six months earlier, shows a functional clip. (Ex. 8.)

Q1 also shows the Sapphire with pillowed aluminum side panels. (Ex. 8.) Yet Hawkinson testified that he first suggested pillowed panels in 1998, and his testimony is corroborated by a series of illustrations dated January 23, 1998, depicting various designs to determine if the side panels should be flat or pillowed. (Ex. 1004.) And according to Keller, the decision to make them out of aluminum was not made until after he was involved. Keller testified that they originally decided to use plastic but decided to go with aluminum, which would allow laser engraving and make the item more marketable. (Keller Dep. 226:011-227:12.)

Keller also testified that the snap dome switch depicted on Q1 was his idea and that he came up with it fairly close to the date Reeves created the CAD drawing for the switch, which was March 9, 1998. (Ex. 1054.) According to Keller, he probably started on the switching mechanism within a month of when they started the project. He called the Snap Dome company and was sent a box of free samples, which he and Reeves worked with. Initially, they had so many problems that they

decided not to use it, but later went back to it. (Keller Dep. 63:02-64:07.) Keller could not see how Q1 could have been drawn before he and Reeves had even started on the project. (Keller Dep. 73:21-74:15.)

In sum, Q1 depicts engineering and design choices that were not made until Keller and Reeves not only started on the project, but were well under way. When asked his opinion about the document, Keller responded:

A. This drawing was created quite a way—quite a while along, I believe, in the design of the flashlight because we had gone through a number of various ideas and the rubber switch, the aluminum panels, and the way the LED is laid out over the Snap Dome, and this coil spring, this was all fairly well along in the development of this project.

Q. How far along would you estimate?

A. Probably at least halfway through it.

(Keller Dep. 73:21-74:04.) Based on the testimony of Keller and Hawkinson, the date on Q1 cannot be accurate.

In the face of this evidence, ASP's efforts to portray Hawkinson as a disgruntled former employee who is bitter about the loss of his primary source of income simply do not ring true. I found Hawkinson's testimony credible and his photorealistic images provide important corroboration of his testimony. The fact that ASP did not disclose this evidence to the defendants and, the fact that Parsons, upon being informed by Hawkinson that he had been subpoenaed, told him he could minimize his involvement by telling the defendants he did not have any records and did not recall anything (Tr. 123), strongly suggest that Parsons, too, recognized the significance of Hawkinson's testimony.

The same is true for Keller's testimony. Although he, too, had a falling-out with Parsons that resulted in a confidential settlement, I did not find in his testimony any signs of bitterness or

attempts to “get even.” Keller initially placed his work on the Sapphire in relation to his work on other projects without even knowing when his involvement in those other projects occurred. It was only after the documents he had not seen for almost ten years were produced that he was confident about providing time frames for events, and it was ASP’s own documents, selectively provided over the two deposition sessions, that provided the basis for this most important testimony.

Ultimately, what is apparent is that both Hawkinson and Keller clearly believed that Q1 could not have been drawn on the date it was given. There is no plausible reason to discount their testimony in favor of Parsons’. Parsons’ own self-interest is manifest, while theirs is not. And the testimony of both Hawkinson and Keller finds strong support in the documents received into the record. Parsons’ does not. In addition to the absence of evidence that any design work on the Sapphire was commenced before January 15, 1998, no evidence was offered to support his claim that he pre-sold the Sapphire at a trade show in Las Vegas in January of 1998.¹⁵ No one recalls seeing Q1 and, though Parsons claims to have immediately sent it off to Keller and Reeves after drawing it, he can offer no enclosure letter, cover sheet, or other correspondence that references it. The first evidence of its existence, apart from Parsons’ uncorroborated testimony, is his Rule 1.131 Declaration that was filed with the PTO on November 19, 2002.¹⁶ (Ex. 1079.)

¹⁵ ASP also failed to provide corroboration of Parsons’ testimony concerning the lock that inspired the shape of the Sapphire. He testified that he obtained the lock in 1995, even before Hawkinson had shown him the Photon Microlight, which suggests he decided on the shape of the light before he was given the sample of the light on which he intended to pattern it. His testimony also gives rise to the question: If these were the key components of his concept for a miniature LED flashlight, why did he wait so long to start work on it?

¹⁶ Keller’s testimony at his July 15, 2005 deposition that “it does look familiar” (Keller Dep. 146:16.), especially viewed in context, does not confirm Parsons’ claim that he created Q1 in June of 1997.

4. Document 5560

Finally, there is the document known as 5560, which is a “feature sheet” dated December 4, 1997. (Ex. 1059.) Armament presented this document as the most detailed 1997 document corroborating a June conception date, and Parsons testified that he created the sheet for a December 4, 1997, meeting with his patent counsel, Brad Hulbert.¹⁷ Defendants have expended considerable effort in an attempt to show that this document is a fraud. Computer searches and meta-data analyses have shown that the only discernible creation date on the document is March 21, 2000. There is, in other words, no digital record of the document having been created in 1997.

In its post-trial reply brief ASP suggests that the document is “irrelevant” because it was not submitted to the PTO. (ASP Reply at 14.) But ASP has offered Document 5560 as evidence corroborating Parsons’ claim that the date on Q1 is valid. (ASP Opening Post Trial Br. at 2.) Obviously, a false document submitted as evidence in a federal case is a serious matter. Furthermore, if Document 5560 is false, its falsity further undermines Parsons’ credibility and provides even more support for the defendants’ allegation that Q1 is fraudulent. It would “reveal a practice, if not a pattern, of manufacturing documents.” (Def.’s Reply Br. at 13.)

ASP protests, why create a fraudulent document in 2000, some two and one-half years prior to Q1's submission to the PTO? The defendants point out, however, that the March 21, 2000, date

¹⁷ ASP’s contention that a March 14, 2000, letter from Attorney Hulbert “confirms that the Sapphire light was discussed at that meeting” overstates the evidence. Hulbert’s letter states: “Upon reviewing my entry for December 4, 1997, *I believe* that Dr. Parsons discussed the Sapphire light with the MBHB team on December 4, 1997.” (Ex. 52 (*italics added*)). The entry on the attached billing record merely states “Meeting with Dr. Parsons and Mr. Hulbert to discuss pending trademark matters” (*Id.*), and the agenda for the meeting does not mention the Sapphire or any related matter. (Ex. 1159.) No other corroboration was provided, and neither Mr. Hulbert, nor any other person, confirmed Dr. Parsons’ vivid recollection of the meeting.

found by their computer expert fits all-too-conveniently within the exact temporal context of Armament's ongoing discussions with its attorneys about the patent's creation date. Specifically, in March 2000 Armament's litigation counsel was seeking evidence of the first time Parsons ever discussed the Sapphire light with his patent counsel. In a March 14, 2000, letter, Hulbert responded that he believed he had in fact discussed the Sapphire with Parsons at a December 4, 1997, meeting. (Ex. 52.) Defendants portray this March 2000 interchange as an obvious attempt to create a paper trail to support an earlier conception date. (Recall that the Padden conception date was November 1997.) Thus, it is no coincidence that the feature sheet's only obtainable creation date is March 21, 2000—exactly the time period when the issue of Sapphire's conception date first arose. The defendants argue that Parsons must have created this document as a first attempt to retroactively bolster his creation date. As soon as the issue was raised by counsel, he created the document to lend credence to his story that he was already in talks with his patent attorneys in December 1997.

In truth, it is more reasonable to conclude that *both* 5560 and Q1 were backdated than it is to conclude that both documents are legitimate. If they are both legitimate, then Parsons would have had access to Q1 in 2000 when the conception date issue first arose. In fact, if the date on Q1 is true, then a detailed sketch of the Sapphire was in a plastic sleeve in his concept book at the time. Yet if Q1 existed in 2000, why would he not simply refer his attorneys to Q1 when the issue arose rather than ask his patent attorney to attempt to recall what was discussed at a December 1997 meeting? After all, Q1 was sufficiently detailed to overcome the PTO's objections based on Padden, and its existence in 2000 would seem to obviate the need to look to old billing records or rely on an attorney's unaided memory. Thus, the theory that both documents are fraudulent is internally consistent, whereas the theory that both are legitimate would lead to puzzling results.

Wholly apart from considerations of logic, however, the forensic analysis offered by the defendants is strong evidence of its falsity. Moreover, ASP's attempts to explain how the document may have been created ("save as" or "cut and paste") seem weak: why would a new document known as sapphire-lite.doc have been created in 2000 from a document that had already been in existence for two and one-half years? Indeed, it would be yet another remarkable coincidence that the document is traceable to March 21, 2000, the exact time during which Parsons' attorneys were investigating the invention's creation date.

But what is equally, if not even more, telling is the fact that, like Q1 and the supposedly completed CAD drawings, Document 5560 includes features that were not added until later. Document 5560, which again bears a date of December 4, 1997, lists the pillowed aluminum side panels and the integral retention clip with the coil spring. (Ex. 1059.) These are all features that, for the reasons set forth above, I have already found were not added until well along in the design of the Sapphire, long after the December 4, 1997, meeting. In addition, Document 5560 lists as one of the features of the new Sapphire light a "plastic (Xenoy) frame." But Keller testified that he and Reeves made the decision to use Xenoy only after they had tried a different material. The frame for the first prototype was made with ABS. (Ex. 76 at 33.) ABS did not provide the necessary rigidity, so according to Keller, they switched to Delrin, a plastic that had more strength. (Keller Dep. 262:01-05.) But Delrin had to be glued, and they discovered the glue was not holding well: "We were getting a lot of rejects and a lot of returns." (Keller Dep. 261:06-07.) They then decided to go with ultrasonic bonding, and because Xenoy was more suitable for ultrasonic bonding, they changed to Xenoy. (Keller Dep. 261:07-12.) The CAD drawings confirm Keller's testimony. The material listed for the frame changes from ABS to Delrin and, finally, on September 1, 1998, to Xenoy. (Ex.

1084.) When asked whether there was any way someone would have known before January 1998 that they were going to use Xenoy for the Sapphire housing, Keller responded: “I don’t see how.” (Keller Dep. 264:10-16.)

This Court does not see how either. I therefore conclude that the date on Document 5560, like the date on Q1, is false.

III. CONCLUSION

Apart from Parsons’ own testimony, neither side presented eyewitness evidence as to Q1’s creation. This is not surprising, however, and the absence of such evidence does not count in ASP’s favor. Indeed, the very nature of the inequitable conduct alleged here assumes secrecy and the absence of witnesses. If such a case is ever to be proved, it must rely heavily on circumstantial evidence and inferences drawn from all of the surrounding circumstances. Common sense and experience play as powerful a role in such a case as direct evidence, and in this case these proved too much for Parsons’ denials.

But by the same token, throughout these proceedings I have been mindful to avoid placing too much weight on apparent coincidences or the bizarre cast certain behavior may take on when viewed retrospectively. In truth, many of our most mundane everyday actions—such as whether we use “backing” underneath paper—would appear strange if placed under the same microscope through which we have analyzed Dr. Parsons’ actions. But when apparent randomness follows a pattern, it ceases to be random. Thus, the scales were tipped not by the ostensible strangeness of Parsons’ theory *per se*, but because Parsons’ theory requires belief in the perpetuation of *multiple* inexplicably random relationships between otherwise unrelated documents. It is possible that such

coincidental relationships could have been explained away, but Parsons' testimony did not succeed in that effort. And when the alternative explanation is as simple as believing documents were in a pad of paper, the chain of unlikely events Armament proposed is unsatisfactory.

Ultimately, the principle of Occam's Razor supports the simpler explanation over the one requiring belief in multiple coincidences and unusual twists and turns, *United States v. Navarro-Camacho*, 186 F.3d 701, 708 (6th Cir. 1999), and Armament's explanation is based on changing stories and layer upon layer of coincidences. But it is not only simplicity that favors the defendants' theory: the simpler explanation is also the one supported by the weight of the other evidence—the testimony and other events pointing toward a later creation date, as well as the absence of credible documentary evidence corroborating the June 1997 date. Based on all of the above, it is not difficult to conclude by clear and convincing evidence that the document known as Q1 was drafted not in June 1997 but at some much later date. The only reasonable conclusion to be drawn, therefore, is that Parsons committed inequitable conduct by knowingly creating and submitting a false material document to the PTO in 2002. The patent in suit is therefore unenforceable. *eSpeed, Inc. v. BrokerTec USA, L.L.C.*, 480 F.3d 1129, 1135 (Fed. Cir. 2007).

IT IS THEREFORE ORDERED that ASP's claims of infringement based on the '018 patent are **DISMISSED**. The clerk shall set this matter on the Court's calendar for a Rule 16 conference concerning the status of those claims that remain and further scheduling.

Dated this 24th day of July, 2007.

s/ William C. Griesbach
William C. Griesbach
United States District Judge