

United States District Court,
D. Minnesota.

TRASCLEAN CORPORATION, James P. Viken, Jon A. Lang, and Donald E. Johnson,
Plaintiffs.

v.

BRIDGEWOOD SERVICES, INC,
Defendant.

No. Civ. 97-2298 RLE

Nov. 12, 1999.

Owner of patent for automatic transmission fluid changing device sued competitor for patent infringement, trademark infringement, and false advertising. On cross-motions for summary judgment, the District Court, Erickson, United States Magistrate Judge, held that: (1) fact issues existed as to whether plaintiff's patent was invalid as anticipated; (2) fact issues existed as to whether plaintiff's patent was infringed; (3) fact issues existed as to whether plaintiff's patent was unenforceable as having been obtained by inequitable conduct; (4) plaintiff had no protectable trademark; and (5) fact issue existed as to whether defendant's advertising claims were false.

Motions granted in part and denied in part.

5,318,080, 5,522,474. Construed.

Jon S. Swierzewski, Alan Marshall Anderson, Renee L. Jackson, Christopher K. Larus, Larkin Hoffman Daly & Lindgren, Bloomington, MN, for Plaintiffs.

Karl L. Cambronne, Becky L. Erickson, Chestnut & Cambronne, Minneapolis, MN, Warren E. Olsen, Fitzpatrick Cella Harper & Scinto, Washington, DC, for Defendants.

MEMORANDUM ORDER

ERICKSON, United States Magistrate Judge.

I. Introduction

This matter came before the undersigned United States Magistrate Judge pursuant to the consent of the parties, made in accordance with the provisions of Title 28 U.S.C. s. 636(c), upon the Plaintiffs' Motion for partial Summary Judgment, and upon the Defendant's Motion for Summary Judgment. A Hearing on the Motions was conducted on April 6, 1999, at which time the Plaintiffs appeared by Alan M. Anderson and Christopher K. Larus, Esqs., and the Defendant appeared by Warren E. Olson and Karl L. Cambronne, Esqs.

For reasons which follow, the Motions are granted in part, and denied in part.

II. Factual and Procedural Background

This case arises from commercial strife between competitors in the automotive service, equipment manufacturing business. The dispute centers on the patenting, and marketing, of their respective automatic transmission fluid changing devices.

Traditionally, automatic transmission fluid could only be changed through the "gravity drain," or "service fill" method, in which the old transmission fluid was allowed to drain out of the transmission sump, and new transmission fluid was introduced to replace it. This process could never effect a total exchange of fluids, because unaided drainage would leave a significant portion of fluid trapped in remote areas of the transmission chamber. See, e.g., *Operator's Manual for the TFX Total Fluid Exchange System* at 8, *Affidavit of Christopher K. Larus Supp. Pls.' Part. Mot. Summ. J. on Infringement ("Larus Infringement Aff.")*, Ex. 3.

The relatively new FN1 technology, which serves as the root of this litigation, replaces the traditional fluid changing method with a machine that claims to be able to replace almost all of the vehicle's transmission fluid, by equalizing the simultaneous influx of new transmission fluid with the drainage of the old. This form of flow regulation is designed to ensure that all of the transmission fluid is replaced in one smooth, fifteen-minute process, and that the greatest displacement of old fluid can be accomplished with the least amount of new fluid. This process, assertedly, conserves both time and expense.

FN1. How "new" the technology is remains a subject of intense debate between the parties.

Plaintiff Transclean Corporation ("Transclean"), and the Defendant Bridgewood Services, Inc. ("Bridgewood"), FN2 each have ownership rights to one of these innovative, automatic transmission fluid changing systems, and they are in direct competition in both the manufacture and sale of their products. The parties' technological and competitive proximity having engendered this litigation, their dispute concerns their respective patent and trademark rights, as well as the legality of Bridgewood's advertising claims. The Plaintiffs contend that their patent- U.S. Patent No. 5,318,080 (the "Viken Patent")-which was issued to the Plaintiff James Viken ("Viken"), is being infringed by a similar device, which is manufactured by Bridgewood, and which was patented by Jerry Burman ("Burman"), on June 4, 1996, as U.S. Patent No. 5,522,474 (the "Burman Patent"). Bridgewood denies that its device infringes the Viken Patent, and affirmatively maintains that the Viken Patent is invalid, or unenforceable, on several grounds. In addition, the Plaintiffs assert that Bridgewood's advertising of its device encroaches upon Transclean's common law right to the trademarks "TOTAL FLUID EXCHANGE," and "TOTAL FLUID X-CHANGE," in violation of the Lanham Act, Title 15 U.S.C. s. 1125, and the Minnesota Deceptive Trade Practices Act ("MDTPA"), Minnesota Statutes Section 325D.44. Lastly, in their third cause of action, the Plaintiffs seek damages, and injunctive relief, for Bridgewood's alleged false advertising which, purportedly, violates the Lanham Act, the MDTPA, and the Minnesota Consumer Fraud Act, Minnesota Statutes Section 325F.67.

FN2. The name of the Defendant has changed several times during this litigation-from Burman Products, Inc., to T-Tech Industries, Inc.-and then, finally, to Bridgewood Services, Inc. ("Bridgewood").

A. *The Viken Patent and its Prosecution.* As noted, the Viken Patent was issued on June 7, 1994, and was issued from Application Serial No. 07/781,322, which was filed on October 23, 1991. Generally, the patent claims an apparatus for "[f]luid changing in an automatic transmission by opening the cooler line and draining used fluid, at the flow of normal circulation, out of the cooler line from the transmission into a drain receptacle for receiving used fluid and simultaneously supplying fresh fluid, from a pressurized supply receptacle, into the cooler return line to the transmission at a similar controlled rate that is equal to or greater than the rate of flow of the used fluid into the drain receptacle." *Viken Patent*, abstract.

The Viken Patent contains thirteen claims for an automatic fluid changing apparatus, only the first of which is an independent claim—that is, a claim which is entirely self-contained—while the remaining twelve claims refer back to Claim 1, and incorporate its limitations.FN3 Accordingly, each of the thirteen claims embody the following provisos, as set forth in Claim 1:

FN3. See, 37 C.F.R. s. 1.75(c) ("One or more claims may be presented in dependent form, referring back to and further limiting another claim or claims. Claims in dependent form shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim.").

In a fluid replacing apparatus for an automatic transmission an improvement having fluid circulation inlet and outlet ports comprising;

a fluid receiver adapted to be connected to the fluid circulation output port on an automatic transmission;

a source of fresh transmission fluid adapted to be connected to the fluid circulation inlet port on said automatic transmission so that fluid circulates therethrough; and

means connected to said fluid receiver and said source of fresh fluid, for equalizing the fluid flow into said fluid receiver and out of said source of fluid.

Id., col. 8, 10-24.

The Viken Patent specification discloses three different structures that perform the function recited in Claim 1, the most pertinent of which is that described in Figure 3 of the Viken Patent.

Figure 3 of the Viken Patent depicts a closed tank that has a "flexible, rubber-like diaphragm," which divides the tank into two chambers, and separates the fresh fluid from the used fluid. *Id.*, col. 4, 54-68, col. 5, 1-8. The depiction is shown as being operated with the upper half of the tank filled with fresh fluid, and connected to the inlet port on a vehicle's transmission, and the lower half, which is set to collect the used fluid, being connected to the transmission's outlet port. *Id.*, col. 3, 19-33. When the user activates the transmission pump, and new fluid begins to displace the old within the transmission, the diaphragm maintains a state of equilibrium between both halves of the tank, such that the total volume of fluid contained in the tank is constant, the pressure in the tank is symmetrical, and the rate of flow of old and new fluid is automatically equalized by the diaphragm. See, *id.*, col. 3, 33-40; *Expert Report of Richard J. Goldstein* at 1, *Second Affidavit of Christopher K. Larus*, Ex. 24. The other two depictions of the Viken Patent—Figures 4 and 6—incorporate manual processes for equalizing the flow of the old and new transmission fluids. Each of these depictions employs a pressure gauge, and a manually operated relief valve, to equalize the fluid replacement process.

Viken applied for a patent for this device on October 23, 1991. At that time, Viken had not yet built a

working prototype of the device that is depicted in Figure 3. *Deposition of James P. Viken* at 28-30, *Bridgewood App. P 8*. Under Title 35 U.S.C. 102(b)-which states that an invention which "was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States," is not patentable-October 23, 1990, becomes a critical date in the U.S. Patent and Trademark Office's (the "PTO's") consideration of Viken's application. Indeed, two conceptions of prior art, consisting of U.S. Patent No. 3,513,941 (the "Becnel Patent"), which was issued to Neil Becnel ("Becnel"), and a Japanese patent, JP 2-72299, which both disclose an automatic transmission fluid changing device, predate Viken's application by more than one year, and are indisputably relevant to the claims of the Viken Patent.

Viken did not submit a copy of the Becnel Patent to the Patent Examiner in an Information Disclosure Statement, and the file history bears no suggestion that the Examiner independently obtained either reference for purposes of considering Viken's application. In his application, Viken listed the Becnel Patent among various other patents, in the "Description of the Prior Art." *Application Serial No. 07/781,322* at 2, *PTO File for Viken Patent, Bridgewood App. 1*. Viken related that the Becnel Patent, and U.S. Patent No. 4,745,989, were "believed to be the most directly pertinent" to Viken's invention. *Id.* at 3. Although Viken had only recently been made aware of the existence of the Becnel Patent, he represented to the Examiner that he had utilized the concepts present in the Becnel Patent "in a similar manner," and had encountered performance problems. *Id.* at 5.

Since it is not disputed that Viken was not aware of the Becnel Patent until July of 1991, there is some question as to the veracity of his representation, to the PTO, that he had utilized the method disclosed by the Becnel Patent in the course of designing his invention. In his Affidavit, Viken explains that he had been experimenting with a "free discharge" method for changing automatic transmission fluid which, unbeknownst to him, was the same method that was disclosed in the Becnel Patent. *Affidavit of James P. Viken* para. 3-16. Viken describes the "free discharge" method, with which he was experimenting, as comprising the following:

[I]nterrupting the return line from the cooler to the transmission to allow the used ATF to freely discharge into a receptacle, connecting the return line to a source of fresh fluid, starting the engine of the vehicle to activate the transmission's pumping system, delivering a continuous supply of fresh fluid to the transmission, and metering the flow of fresh fluid until approximately the entire capacity of the transmission cooler had been delivered. I then stopped the vehicle's engine, cut off the source of fresh fluid, and reconnected the return line to close the cooling circuit.

Id. para. 3.

While it was performed on a "derivative" of one of Viken's fluid changing devices, see, *Viken Depo.* at 299, which did not precisely correspond with the embodiments of the Becnel device, FN4 *id.* at 312-15, the method that Viken describes is identical to that disclosed in the Becnel Patent. See, *Becnel Patent*, col. 3, 7-22, col. 4, 1-5, *Larus Second Aff., Ex. 72*.

FN4. In contrast to the depiction in Figure 5 of U.S. Patent No. 3,513,941 (the "Becnel Patent"), which uses volume flow meters and gauges, Plaintiff James Viken ("Viken"), employed graduated five-gallon containers as a proxy for their function. See, *Deposition of James P. Viken* at 314-15, *Bridgewood App. P 8*.

Viken avers that, only after he had conceived of his invention, and had consulted with a patent lawyer, did he learn that the method he had tested was, quite coincidentally, disclosed in the Becnel Patent. *Viken Aff.* para. 14. Thus, according to Viken, his statements to the Patent Examiner, concerning the difficulties in the Becnel Patent's methodology, reflect his unwitting experience with that same methodology before he knew that it was patented. However, Viken never attempted to contact Becnel, nor did he consult the file history of the Becnel Patent application, in order to make sure that his conception of how Becnel's device worked was an accurate one. *Viken Depo.* at 301.

The malfunction that Viken encountered, when he experimented with the method disclosed in the Becnel Patent-at least as he understood it-was "that most, if not all, of the transmissions operated upon became excessively hot or were subject to internal damage to the fluid seals, rear bearings, or other internal components because it was impossible to maintain equality between the fluid added and the fluid drained, because it was impossible to maintain normal fluid flow rates and flow patterns external to and internal within the transmission and its component parts." *Application Serial No. 07/781,322* at 5. According to the Viken Patent specification:

Becnel's invention *** allowed no clear means of balancing and/or matching that flow rate to the rate at which fluid is normally circulated through the cooler line back to the transmission or regulating the exhausting of aged fluid into the waste receptacle to produce a balanced substitution of fresh fluid for aged fluid.

Viken Patent, col. 1, 65-69, col. 2, 1-7.

Viken's specification depicts a flow disruption which caused "an intermittent, recurrent starvation condition to certain internal transmission components resulting in undue stress and frequent damage to those components," which was caused by the imbalance in input and output flows that, allegedly, plagued Becnel's invention. *Id.*, col. 1, 54-65.

When the Viken Patent issued, the Becnel Patent was conspicuously absent from the references cited in the heading which listed several other "U.S. Patent Documents." *Id.*, references cited. As noted, Viken and his attorney failed to submit a copy of the Becnel Patent to the Examiner, even though Viken informed the Examiner that it was one of the most pertinent to his invention. It is unclear whether the Examiner, in fact, independently obtained the Becnel Patent and, thereafter, examined it. Evidently, the Examiner did search the field of art to which the Becnel Patent belonged. *Viken Patent*, field of search. For example, there are cryptic notations, in the margins of the application, and beside the section listing the patents that were discovered in Viken's prior art search-the Becnel Patent among them-as well as jottings that are adjacent to the portion of the application that describes Becnel's achievement of prior art as "the most directly pertinent" to Viken's invention. *Application Serial No. 07/781,322* at 2-3. These handwritten markings are not accompanied by any form of identification, making their authorship a matter of some surmise.

Viken provided the Examiner with two sketches-Figures 1 and 2-of the prior art that he discussed in the specification, and that included the Becnel Patent. In both illustrations, used fluid is allowed to flow, "unrestricted and unregulated," into a bucket or some other outlet. *Viken Patent*, col. 4, 21-47. By comparison, Figure 5 of the Becnel Patent, which "shows a modified arrangement of [Becnel's] fluid change means," shows that a "meter," and a "gauge," are employed to measure input and output. *Becnel Patent*, col. 2, 49-73. As explained in the Becnel Patent, the operator would keep an eye on both the meter and gauge, in order to determine when "the same amount of fluid ha[d] been discharged into the receptacle, as [had been]

forced out of the tank by the air line," at which point "it is time to shut down the procedures, reconnect the line to the discharge pipe and bring the transmission to the proper level by conventional methods." *Id.*, col. 2, 63-73. After once rejecting Viken's application on unrelated grounds, the Examiner allowed his invention to be patented, prior art notwithstanding. See, *PTO File for Viken Patent*.

B. *Pertinent Conceptions of Prior Art*. Viken's invention is not the first such apparatus that was developed as an improvement over the traditional method of automatic transmission fluid replacement. Among the several fluid changing designs, which comprised the state of prior art to the Viken Patent, a series of devices, that Becnel designed, as well as JP 2-72299, are relevant to this case.

1. *Becnel Hydro-Pure Devices*. Becnel is a trained mechanic, and he has owned, and operated, a transmission repair service in the New Orleans, Louisiana, area since 1956. *Revised Declaration of Neil J. Becnel, Sr.* para. 2, *Supplemental Expert Report of Neil J. Becnel Sr., Bridgewood App. P 5*. In this case, Becnel has been retained by Bridgewood as an expert on the production and functioning of transmissions, and on automatic transmission fluid exchange devices. At the same time, Bridgewood relies upon him as a fact witness, in order to claim that he was the inventor of devices that anticipated the claims of the Viken Patent.

Becnel testified that, between 1964 and 1971, he designed and built several different transmission fluid changing devices, which he "considered to perform a complete or total fluid exchange." *Revised Becnel Decl.* para. 3. Becnel claimed that, after experimenting with several precursor models, he designed and built two prototypes in early 1967, which were based upon an air pressure design, and which "allowed the operator to adjust the pressure of the fluid being introduced into the transmission so as to balance the flow going into the transmission, through the oil outlet line, with the flow going out of the transmission, into a waste receptacle." *Id.* para. 5. The equalization of the flow of fluids into and out of the transmission was, allegedly, accomplished by the previously referenced flow volume meters, and a throttling valve, which could be manually adjusted to manipulate the flow. See, *Declaration of Eugene L. Johnson* para. 16, *Expert Report of Eugene L. Johnson*. This mechanism, which Becnel named the "Hydro-Pure," was the subject of the Becnel Patent that was issued on May 26, 1970.FN5

FN5. U.S. Patent No. 3,513,941 (the "Becnel Patent") contains a single claim, which discloses a method of simultaneously draining and refilling automatic transmission fluid, by "interrupting the return line from the cooler to the transmission to permit free discharge of fluid from the cooler; connecting the return line to a source of fresh fluid; starting the engine of the vehicle activate the transmission and its pumping system; continuously delivering fresh fluid from said source to the return line from said cooler to said transmission; metering said fresh fluid until approximately the entire capacity of said transmission and the cooler has been delivered; thereafter stopping said engine, cutting off said source and restoring said return line to provide closed circuit circulation." *Becnel Patent*, col. 3, 8-23, col. 4, 1-5.

Becnel testified that, in 1968, while his patent application was pending, he "conceived of and started to develop still another total fluid exchange device, that was based upon a known brake bleeder device." *Revised Becnel Decl.* para. 9. He claims to have modified an EIS model 3400 "brake bleeder," in order to create a new Hydro-Pure transmission fluid changing device, FN6 which closely resembled the device depicted in Figure 3 of the Viken Patent. According to Becnel, this second generation Hydro-Pure automatically balanced the ingress and egress of transmission fluid by using a closed tank, which was separated by a flexible, rubber diaphragm. *Id.* Becnel related that he manufactured three modified EIS

devices between 1969 and 1976, and publicly used, advertised, and sold them in those, and in ensuing years. *Revised Becnel Decl.* para. 9-16.

FN6. For clarity's sake, to distinguish between the Hydro-Pure that was disclosed in the Becnel Patent, and the one that was never patented, we refer, in the text of this opinion, to the former design as the Becnel Patent, and we reserve the name "Hydro-Pure" to refer to the latter device.

2. *JP 2-72299*. Japanese inventors Satoshi Shiroyama and Kazuo Maruyama devised their own automatic transmission fluid replacement apparatus in 1988, which was published as a laid-open Japanese patent on March 12, 1990. *JP 2-72299* (Bertrand Languages, Inc. translation), *BridgewoodApp. P3*. The specifications of that patent consist of the following elements:

[1] a means which connects to the oil cooler of an automobile or to the automatic transmission fluid line which is connected to the oil cooler; [2] a fluid drainage tube in via said connection means as the engine of the automobile runs; [3] a means which controls the outflow of the used automatic transmission fluid by opening and closing the aforementioned drainage tube or by adjusting the flow rate; [4] a means which detects the amount of used automatic transmission fluid which is removed by the fluid transmission tube; a fluid supply tube which is provided with a pump or other means of pressurization from the aforementioned supply tube; and a means which controls the aforementioned control means, **so that the aforementioned pressurization means based on the amount of fluid drained and the amount of fluid supplied by both of the aforementioned control devices automatically balances the amount of fluid drained and the amount of fluid supplied within an indicated range** to resolve [the problems associated with manual balancing of the flow rate of used and new automatic transmission fluids].

Id. at 14-15 [emphasis added].

Stated otherwise, the device performs its "automatic" balancing process through a computerized system that measures the weights of the used and fresh fluid receptacles and stores the data in its "memory." Then, during the fluid changing operation, "the amount of fluid drained and the amount of fluid supplied are constantly monitored" and, if "the difference between these deviates from the indicated range, compensating operations are carried out by adjusting the electromagnetic valve or the pump so that neither of these is advanced to an extreme." *Id.* at 20.

C. *Bridgewood's Fluid Exchanging Device*. Since March of 1995, Bridgewood has manufactured, sold, and offered for sale in the United States, its own automatic transmission fluid exchanging system. *Deposition of Jerry Burman* at 52, *Affidavit of Christopher K. Larus Supp. Mot. P. Summ. J. on Defs.' Patent Invalidity and Unenforceability Claims* ("*Larus Invalidity Aff.*"), *Ex. 5*; *Deposition of James R. Fitzsimons* at 61, *Larus Infringement Aff., Ex. 62*. Bridgewood's fluid changing device is covered by the Burman Patent. Like the Viken Patent, the Burman Patent discloses a transmission fluid exchanging machine that uses a bicameral fluid reservoir, which is divided between repositories for fresh and used fluid, and which purports to permit "essentially one hundred percent of the used fluid to be removed and concurrently replaced with fresh fluid ***." *Burman Patent*, col. 4, 36-38. Unlike the Viken Patent, which disclosed a flexible, rubber-like diaphragm as the means for automatic flow equalization, the Burman Patent describes a "free-floating piston" that separates the two chambers which contain the fresh and used transmission fluids. *Id.*, col. 5, 35-37, col. 6, 15-21, 47-49.

Burman applied for his patent on October 7, 1994. On June 12, 1995, the Patent Examiner rejected Burman's application because, among other reasons, Burman's invention was unpatentable under Title 35 U.S.C. s. 103, over the Viken Patent, among others. *Action of Patent Office on Application Serial No. 08/319,593* at 4-15, *PTO File for Burman Patent, Bridgewood App. P4*. In a response, dated June 26, 1995, Burman offered certain amendments, which are not here pertinent, and he argued, as follows, that his device was sufficiently distinct from the Viken Patent so as to overcome the Examiner's objection:

Viken is cited for a fluid changer that utilizes a *diaphragm*. *** It is not clear that the rubber-type diaphragm permits complete evacuation of either chamber. By contrast, the present invention utilizes a free floating piston that permits complete evacuation of used fluid so that no buildup of used fluid can occur. The flexible, rubber-type diaphragm of Viken utilizes elasticity as the motive force, and it appears unlikely that either chamber could be completely evacuated.

Application Amendment and Remarks at 5, *PTO File for Burman Patent* [emphasis in original].

On September 20, 1995, the Examiner informed Burman that his arguments did not overcome the initial objections. "Concerning [Burman's] argument that the rubber diaphragm of Viken will not permit a complete evacuation of used fluid," the Examiner noted that "there is no recitation of this feature in the claims." *Examiner's Response to Communication Filed on July 3, 1995* at 4, *PTO File for Burman Patent*. Further, in the course of rejecting Burman's argument that his design was not obvious to one of ordinary skill in the art, the Examiner observed that "a diaphragm and a free floating piston are functional equivalents as is known in the art." *Id.*

Burman again amended his application, in order to insert a claim that the system would "extract[] all used transmission fluid from an automatic transmission system ***." *Application Amendment After Final and Remarks* at 1, *PTO File for Burman Patent*. In addition, Burman breathed new life into his argument, that the flexible, rubber-like diaphragm, that was disclosed in the Viken Patent, and his free-floating piston, were functionally distinct, in the following words:

A key element in the present invention is the use of a **floating piston**. Although the diaphragm of Viken will produce the desired result, it performs by deformation under pressure. The floating piston provides a positive displacement of fluid, and therefore performs the function in a different manner than a flexible diaphragm.

Id. at 4 [emphasis in original].

Thereafter, the Examiner dropped his rejection of Burman's application without further comment, and the patent issued on June 4, 1996.

D. Marketing of the Competing Fluid Changing Devices. 1. Trademarks. Since January of 1994, Transclean has marketed an automatic transmission fluid exchanging device called the TFX 5000, using the marks "TOTAL FLUID EXCHANGE," and "TOTAL FLUID X-CHANGE." *Viken Aff.* para. 27. The Record discloses that Transclean placed the marks on various advertising materials, on invoices, and in the TFX 5000 owners manual. See, *Transclean Ads, Larus Second Aff.*, Exs. 55, 62, 68; *Transclean Operator's Manuals, Larus Second Aff.*, Exs. 63, 67, 69. Transclean has not, however, federally registered either trademark.

The Record reflects that Transclean has used the phrase "total fluid exchange" both emblematically, and as a description of the claimed performance of the TFX 5000. There are several examples of Transclean's employment of the phrase as the name of its product, or its company slogan but, in total, those uses do not completely reflect the descriptiveness of that terminology. For example, in a brochure, that was distributed, in 1994, by Minnetonka Transmission, Transclean's product is heralded as the "-TFXTOTAL FLUID EXCHANGE SYSTEM." *Transclean Advertisement, Larus Second Aff., Ex. 62*. An undated advertisement bears the title: "Total Fluid Exchange System(R) for Automatic Transmissions." *Transclean Advertisement, Larus Second Aff., Ex. 68*. Likewise, the 1994 operator's manual for the TFX bears the title:

**OPERATOR'S MANUAL FOR THE TFX TOTAL FLUID EXCHANGE SYSTEM FOR
AUTOMATIC TRANSMISSIONS**

Transclean Operator's Manual, Larus Second Aff., Ex. 63.

The inclusion of the word "system," after "total fluid exchange," preserves some of the descriptive qualities of the phrase. As of April of 1997, the cover page of the manual had changed the spelling of the word "Exchange." -shortening the term to "Xchange." *Transclean Operator's Manual, Larus Second Aff., Exs. 67, 69.*

There are other examples where Transclean employed "total fluid exchange" as an entirely descriptive phrase. In the previously referenced 1994 brochure, Transclean includes the following claim:

Before the -TFXTOTAL FLUID EXCHANGE SYSTEM by TRANSCLEAN was developed and made available to the Public, TOTAL FLUID EXCHANGE WAS NOT POSSIBLE.

Transclean Brochure at 1.

Similarly, the undated advertisement, which was captioned "Total Fluid Exchange System(R) for Automatic Transmissions," represents that the product "Provides a Total Fluid Exchange(R)." *Transclean Advertisement, Larus Second Aff., Ex. 68.*

After Viken had sent a letter to Bridgewood, on August 8, 1996, which notified it of a possible patent infringement claim, and which bore the subscript "Manufacturer of the patented TFX(R) Dynamic Total Fluid Exchange System for Vehicular Automatic Transmissions," Bridgewood began to use, in 1997, the phrase "total fluid exchange" in its advertising. Specifically, an advertising brochure, a three-foot by eight-foot banner, a wall poster, and a ceiling-hung mobile, each prominently featured the words "Total Fluid Exchange" in a wavy, stylized, format that was emblazoned across the entirety of the advertisement. See, *Bridgewood Advertisements, Bridgewood App. T6, Larus Second Aff., Exs. 45, 47*. In each case, "Total Fluid Exchange" appears as the largest words on the advertisement, and those are the only words that billow in size as they proceed across the display. Bridgewood consistently placed this emblem below the word "T-TECH," which was its former company name.FN7 *Id.* Bridgewood's officers never made an effort to determine whether a competitor, or any other entity, claimed ownership of the "Total Fluid Exchange" mark. *Burman Depo.* at 114.

FN7. Bridgewood sent its marketing materials primarily to trade periodicals, as well as distributing them at trade shows. This practice was followed because 95 percent of Bridgewood's customers were large distributors, while only five percent were end-users. *Deposition of James R. Fitzsimons* at 61, *Bridgewood*

2. *Bridgewood's Advertising Claims.* Given that Transclean's and Bridgewood's patents claim a vast improvement in the efficiency of automatic transmission fluid exchange procedures, over the traditional gravity drain method, it is not surprising that both companies attempted to capitalize upon their technological advancements by touting the improved efficiency of their products and, specifically, that they effect a complete exchange of fluids. For its part, Transclean has claimed, in its advertising, that the TFX 5000 device performs a "total" or "complete" fluid exchange, and can replace "all" or "virtually all" of the "used, dirty fluid" in an automatic transmission. See, *Transclean Brochures, Bridgewood App. T1.*

Bridgewood's advertisements were somewhat more intrepid-claiming that its product replaces "100%" of a vehicle's dirty automatic transmission fluid, or that it replaces "all" or "every drop" of used fluid. See, *Bridgewood Advertisements, Larus Second Aff., Exs. 36, 38, 40, 43, 47.* Bridgewood subsequently scaled back its advertising claim, qualifying its representation to a replacement of "virtually 100%," and later "nearly 100%" of a vehicle's used transmission fluid. See, *Bridgewood Advertisements, Larus Second Aff., Exs. 37, 41, 42, 44, 45, 46.* Bridgewood's advertising claims were disseminated to its customers through national trade journals, trade shows, direct mailing, and some of its brochures were transmitted with the delivered machines as promotional materials to be used in repair shops. *Burman Depo.* at 99-100; *Fitzsimons Depo.* at 92-94.

E. *Procedural Posture.* The Plaintiffs filed suit against Bridgewood on October 14, 1997, claiming that Bridgewood infringed Claims 1, 2, 3, 4, 12, and 13, of the Viken Patent. After the parties consented to the exercise of jurisdiction by a United States Magistrate Judge, see, Title 28 U.S.C. s. 636(c), the Plaintiffs Amended their Complaint, on May 1, 1998, to allege that Bridgewood's use of the mark "Total Fluid Exchange," and its advertising claims, violated the Lanham Act, MDTPA, and the Minnesota Consumer Fraud Act. In response, Bridgewood denied these claims, and counterclaimed for a declaration that the Viken Patent is invalid or unenforceable.

The Plaintiffs now move for Summary Judgment on their claim that Bridgewood infringed Claims 1, 2, 3, 4, and 12, of the Viken Patent,^{FN8} and on Bridgewood's affirmative defenses, and counterclaim, that the Viken Patent is invalid or unenforceable. Bridgewood denies that it has infringed any of the claims of the Viken Patent, and maintains that: (1) the Viken Patent is invalid, as anticipated by the Becnel Hydro-Pure device, the Becnel Patent, and the JP 2-72299 prior art reference; (2) the Viken Patent is invalid as obvious; and (3) the Viken Patent is unenforceable because of inequitable conduct before the PTO. Bridgewood moves for Summary Judgment on all the Plaintiffs' allegations of patent infringement, on its own claims of invalidity and unenforceability, and on the Plaintiffs' trademark and false advertising claims.

FN8. The Plaintiffs have not asked for Judgment as a matter of law with respect to Claim 13 of the Viken Patent.

III. Discussion

A. *Arguments and Expert Opinions Considered.* At the forefront of the many issues that we must consider, in order to resolve the cross-Motions, is the Plaintiffs' argument that Bridgewood should be barred from arguing legal theories, and presenting expert opinions, that were not timely disclosed during discovery. The

Record shows that Bridgewood's stated position, on several of the significant issues in this case, has metamorphosed without regard to the time parameters established by our Scheduling Order. The Plaintiffs argue that Bridgewood's untimely revelation of the factual and legal components of its case has unfairly impaired their ability to conduct discovery with respect to Bridgewood's ever-evolving allegations, or to effectively address those claims in the confines of the Summary Judgment Motions.

With the recommendations of the parties, as expressed in their joint stipulation, our Pretrial Order established three important deadlines, not one of which has been honored. First, the deadline for all discovery in this case was set, after several extensions, at November 15, 1998. Second, as required by Rule 26(a)(2)(B), the deadline for expert disclosures, with respect to the party with the burden of proof on a particular issue, was established at August 3, 1998. Rebuttal expert disclosures were due on August 31, 1998.

In its Answer to the Amended Complaint and Counterclaims, Bridgewood set forth boilerplate assertions that it had not infringed the Viken Patent, and that the Viken Patent "is invalid or void for failure to comply with the requirements of patentability under one or more of the provisions defined at 35 U.S.C. s.s. 101, 102, 103 and 112." *Answer to Am.Compl. and Counterclaims* para. 29-30, 45-46. Before the Complaint was amended, and before Bridgewood served its second Answer and Counterclaim, the Plaintiffs served a set of Interrogatories on Bridgewood to flesh out its position on the issues of infringement, invalidity, and unenforceability. The Plaintiffs asked Bridgewood to "[s]tate all facts and identify all documents" on which Bridgewood based its claim that: (1) it had not infringed the Viken Patent; (2) the Viken Patent was "invalid and/or void"; and (3) the Viken Patent was obtained by virtue of misrepresentations or omissions. *Pls.' First Set of Interrogatories* at 4, *Second Larus Aff., Ex. 85*. Bridgewood responded to the Interrogatory, that asked how it had not infringed upon the Viken Patent, by asserting as follows:

[Bridgewood] responds that it has not infringed the '080 because the patent is invalid. The invention of the '080 Patent was disclosed, or in the alternative, suggested in Japanese Patent No. 2-72299, and in U.S. Patent No. 3,447,636, more than one year prior to the filing of the Application that issued in the '080 Patent. Also, Claim 1 of the '080 Patent describes embodiments which are not enabled by the specification.

Def.'s Resp. to First Set of Interrogatories at 4, *Larus Second Aff., Ex. 86*.

Bridgewood's response to the Interrogatory, which inquired into its claims of invalidity, was substantially identical, adding only that the Plaintiffs committed fraud on the PTO by failing to bring JP 2-72299, and U.S. Patent No. 3,447,636, to the Patent Examiner's attention, and by knowingly concealing the inoperability of the Viken Patent. *Id.* at 5-6. Bridgewood did not include any denial that its device possessed the elements of the Viken Patent, that the Viken Patent was made obvious by prior art under Title 35 U.S.C. s. 103, or that the Viken Patent was anticipated by the Becnel Patent or the Hydro-Pure, in its responses to the Plaintiffs' First Set of Interrogatories. Moreover, Bridgewood has never supplemented its responses to the Plaintiffs' discovery requests.

Becnel, who serves as Bridgewood's expert on automatic transmission fluid changing devices, but not on patent issues, timely produced his expert report on August 3, 1998. In it, Becnel claims that, in 1968, he invented and later sold publicly the Hydro-Pure device, which disclosed "all features of at least Claims 1-4 and 13" of the Viken Patent. *Declaration of Neil J. Becnel, Sr.* para. 12, *Expert Report of Neil J. Becnel, Sr., Larus Second Aff., Ex. 21*. Further, Becnel opined that the Becnel Patent "discloses the features of at least Claims 1-4" of the Viken Patent. *Id.* para. 28.

Eugene Johnson ("Johnson") is Bridgewood's patent expert. His report, with respect to patent invalidity, FN9 was also due on August 3, 1998, but was not produced until August 31, 1998. Essentially, Johnson's report concluded that the Viken Patent was anticipated by the Becnel Patent, that Viken made material misrepresentations to the Patent Examiner concerning the Becnel Patent, and that the Bridgewood device does not infringe Claim 13 of the Viken Patent. FN10 *Declaration of Eugene L. Johnson, Expert Report of Eugene L. Johnson, Larus Second Aff., Ex. 25*. Johnson's expert report disclosed no opinion as to whether the Viken Patent was anticipated by Becnel's unpatented Hydro-Pure device or JP 2-72299, that the Viken Patent is invalid as obvious, or that the Bridgewood device did not infringe Claims 1-4 and 12 of the Viken Patent.

FN9. Bridgewood carries the burden of proof on its affirmative defense of patent invalidity, see, *National Presto Indus. v. West Bend Co.*, 76 F.3d 1185, 1189 (Fed.Cir.1996), and, under our Scheduling Order, Bridgewood was required to disclose Eugene Johnson's ("Johnson's") expert report by August 3, 1998.

FN10. As it pertains to his opinion, that Bridgewood did not infringe Claim 13 of the Viken Patent, Johnson's expert report was timely, since Bridgewood did not carry the burden of proof on that issue. See, *Symbol Technologies, Inc. v. Opticon, Inc.*, 935 F.2d 1569, 1574 (Fed.Cir.1991).

Shortly thereafter, pursuant to the parties' agreement, the Court extended the time for taking discovery to November 15, 1998. The Plaintiffs deposed Johnson as to his expert opinions on October 13, 1998. Plaintiffs' counsel asked Johnson whether he was prepared to offer an opinion as to whether the Bridgewood device infringes Claims 1, 2, 3, 4, or 12. *Deposition of Eugene L. Johnson* at 53, *Larus Second Aff., Ex. 7*. Consistent with his expert report, Johnson testified that he paid no attention to those Claims, and offered no opinion concerning them. *Id.*

Discovery closed on November 15, 1998. As of that date, neither Bridgewood's Interrogatory Responses, its' experts' opinions, nor any other responses to discovery, advanced the argument that the Viken Patent: (1) would have been obvious to one of ordinary skill in the art under Title 35 U.S.C. s. 103; or (2) with the exception of Claim 13, was not infringed by the Bridgewood device. Bridgewood had not provided the Plaintiffs with qualified expert opinions that supported those two arguments, or any qualified expert opinion that: (1) JP 2-72299 anticipates the claims of the Viken Patent; or (2) Becnel's unpatented Hydro-Pure device invalidates the Viken Patent.

More than one month after his deposition, and two days after discovery closed-on November 17, 1998- Johnson produced a supplemental expert report. The report disclosed, for the first time, his opinions that: (1) JP 2-72299 anticipates the claims of the Viken Patent; and (2) Becnel's Hydro-Pure device anticipated the claims of the Viken Patent. *Supplemental Declaration of Eugene L. Johnson, Second Larus Aff., Ex. 26*. Even after this thirteenth-hour expert report, the totality of the discovery, that Bridgewood had provided, contained no assertion that Bridgewood's device did not infringe any, save Claim 13, of the Viken Patent's claims, or that the Viken Patent is void as obvious in light of prior art. These last two opinions were only revealed by Bridgewood at the Summary Judgment stage.

The Plaintiffs urge that the Court should refuse to consider any argument not disclosed in response to their Interrogatories, which squarely asked Bridgewood to identify its theories of patent invalidity, and the bases

of its denial that its device infringes the Viken Patent. In addition, they seek to exclude both of Johnson's expert reports as untimely under the Pretrial Schedule. The Plaintiffs stress that they have been unfairly ambushed by untimely expert opinions, and arguments, that Bridgewood first raised at the Summary Judgment stage.

[1] Rule 26(e)(2), Federal Rules of Civil Procedure, imposes upon a party "a duty to seasonably amend a prior response to an interrogatory *** if the party learns that the response is in some material respect incomplete or incorrect and if the additional or corrective information has not otherwise been made known to the other parties during the discovery process or in writing." This Rule has a simple but important purpose; namely, to prevent Trial by ambush. See, *Reed v. Iowa Marine and Repair Corp.*, 16 F.3d 82, 85 (5th Cir.1994). As the Eighth Circuit Court of Appeals FN11 has explained:

FN11. Of course, we apply the law of the Eighth Circuit with respect to the imposition of discovery sanctions, because discovery issues are not unique to the jurisdiction of the Federal Circuit. See, *Seal-Flex, Inc. v. Athletic Track and Court Const.*, 172 F.3d 836, 845 (Fed.Cir.1999); *Baldwin Hardware Corp. v. Franksu Enterprise Corp.*, 78 F.3d 550, 560 (Fed.Cir.1996), cert. denied, 519 U.S. 949, 117 S.Ct. 360, 136 L.Ed.2d 251 (1996).

For litigation to function efficiently, parties must provide clear and accurate responses to discovery requests. Parties are "entitled to accept previous interrogatories as true, and to refrain from seeking additional discovery directed to the same issue."

Elca Enterprises, Inc. v. Sisco Equip. Rental & Sales, Inc., 53 F.3d 186, 189 (8th Cir.1995) (affirming Trial Court's exclusion of evidence of diminution value damages because "after misleading the defendants for several months," through incomplete interrogatory responses, the plaintiff "made an eleventh-hour attempt to switch the basis for its alleged damages."), quoting *Averbach v. Rival Mfg. Co.*, 879 F.2d 1196, 1201 (3rd Cir.1989), cert. denied, 493 U.S. 1023, 110 S.Ct. 726, 107 L.Ed.2d 745 (1990).

As the latter part of the Rule conveys, "the duty to supplement is excused only if the information at issue has 'already been revealed by a witness in a deposition or otherwise through formal discovery, or, alternatively, by providing the additional information in writing.'" *Gonsalves v. City of New Bedford*, 168 F.R.D. 102, 110 (D.Mass.1996), quoting 8 Wright, Miller and Marcus, *Federal Practice and Procedure: Civil 2d s. 2049.1*, p. 604.

It is clear that Bridgewood never supplemented its Interrogatory responses to accurately and completely disclose its position with respect to the issues of invalidity, and of infringement of the Viken Patent. Bridgewood claims, however, that all of its present assertions had been made known to the Plaintiffs through its Answer to the Plaintiffs' Amended Complaint, and through other written discovery. Bridgewood insists, under this rationale, that it has not breached its duty to seasonably amend its Interrogatory responses.

[2] With respect to several issues, which are discussed in the ensuing paragraphs, Bridgewood is correct. The Court will first dispense with Bridgewood's less viable arguments. For example, its suggestion that the boilerplate allegations in its Answer, and Counterclaims, should substitute for Interrogatory responses, and should relieve it of any obligation to supplement any incomplete responses, is plainly wrong. The purpose of contention Interrogatories, such as those propounded by the Plaintiffs, is to narrow and define issues for Trial beyond what may be ascertained from the parties' pleadings. See, e.g., *Starcher v. Correctional Medical Systems, Inc.*, 144 F.3d 418, 421 (6th Cir.1998) (contention Interrogatories, to which response is ordinarily required, are designed to clarify the scope of an adversary's claims), aff'd. on other grounds *sub*

nom, *Cunningham v. Hamilton County, Ohio*, 527 U.S. 198, 119 S.Ct. 1915, 144 L.Ed.2d 184 (1999); *Taylor v. F.D.I.C.*, 132 F.3d 753, 762 (D.C.Cir.1997) ("remedy" for vague and conclusory pleading is contention Interrogatories), quoting *Orthmann v. Apple River Campground, Inc.*, 757 F.2d 909, 915 (7th Cir.1985); *Capacchione v. Charlotte-Mecklenburg Schools*, 182 F.R.D. 486, 489 (W.D.N.C.1998) (proper contention Interrogatories include those which ask a party to "articulate the facts underlying a contention"). The generic assertions in Bridgewood's pleadings, upon which the Plaintiffs' Interrogatories attempted to focus, so as to remedy their vagueness, cannot serve as an appropriate surrogate form of supplementation, under Rule 26(e), without wholly frustrating the purpose of such contention Interrogatories.

For similar reasons, we cannot agree with Bridgewood's argument, that its own discovery requests can supply "the additional or corrective information" which was never added to its responses to the Plaintiffs' Interrogatories. Bridgewood claims that 89 of its 195 Requests for Admissions, which were served on June 2, 1998, and which ask the Plaintiffs to admit that the Viken Patent was anticipated, or rendered obvious by prior art, should have placed the Plaintiffs on notice of Bridgewood's contentions. See, *Requests for Admission Nos. 107-195 to Transclean, Bridgewood App. P26*. We are not so persuaded. The Plaintiffs should not be obligated to ferret through Bridgewood's Requests for Admissions, which do not bind Bridgewood in any way, in order to weave together Bridgewood's contentions which, otherwise, would be responsive to the Plaintiffs' Interrogatories. To hold otherwise would be to condone "hide the ball" discovery practices, and subvert the purposes of Rule 26(e), by permitting contention discovery to be an elusive guessing exercise.

Only Bridgewood's discovery **responses** could properly provide the Plaintiffs with notice of several of their claims before the expiration of the discovery period. Bridgewood's contention, that the Becnel Patent, the Hydro-Pure, and JP 2-72299 anticipated the Viken Patent, and that the Burman Patent did not infringe Claim 13 of the Viken Patent, were made plain by no later than the end of August of 1998, after Becnel's and Johnson's expert reports had been produced. To that extent, alone, Bridgewood has met its obligations under Rule 26(e)(2).

[3] When discovery closed on November 15, 1998, the Plaintiffs quite properly relied upon the completeness of Bridgewood's responses to their Interrogatories, as supplemented by the other discovery documents that Bridgewood had produced. They had no notice that Bridgewood would argue that the Viken Patent was invalid as obvious under Section 103, or that Bridgewood was not guilty of infringing Claims 1-4, and 12 of the Viken Patent. Bridgewood's latest shift in arguments, after the close of discovery, has precluded the Plaintiffs from conducting discovery on these issues, clearly to the Plaintiffs' prejudice. Therefore, in order to effectively ameliorate the prejudice caused by the Plaintiffs' justifiable reliance on Bridgewood's timely discovery responses, Bridgewood is estopped from asserting that it did not infringe Claims 1-4, and 12, of the Viken Patent, or that the Viken Patent is obvious in light of prior art. See, *Elca Enterprises, Inc. v. Sisco Equip. Rental & Sales, Inc.*, supra at 189; see also, *Clintec Nutrition Co. v. Baxa Corp.*, 1998 WL 560284 (N.D.Ill.1998) (in patent case, because defendant miscarried "an ongoing obligation to supplement its interrogatory answers," it "may only offer those theories of claim interpretation that it provided in its interrogatory answers."). Summary Judgment in favor of the Plaintiffs is granted on those issues FN12 and, correlatively, is denied to Bridgewood.FN13

FN12. The ultimate issue of infringement, of course, depends upon the underlying validity and enforceability of the Viken Patent. Therefore, our ruling in this respect does not preordain a determination of infringement liability.

FN13. We recognize that, in complex litigation, occasions may arise where legal theories are not fully developed until all of the facts are gathered through discovery. This is not one of those instances, as it plainly appears that Bridgewood's belated change in legal theories was not precipitated by untimely discovery on the Plaintiffs' part.

The suggested exclusion of Johnson's expert report, and supplemental expert report, necessitates a somewhat different analysis, although the bedrock consideration, that unfair surprise should be prevented, remains a critical consideration. See, *Sylla-Sawdon v. Uniroyal Goodrich Tire Co.*, 47 F.3d 277, 284 (8th Cir.1995), cert. denied, 516 U.S. 822, 116 S.Ct. 84, 133 L.Ed.2d 42 (1995). Under Rule 37(c)(1), "[a] party that *** fails to disclose information required by Rule 26(a) or 26(e)(1) shall not be permitted to use [the materials not disclosed] at a trial, at a hearing, or on a motion," "unless such failure is harmless," or there was "substantial justification" for that failure. In addition, Rule 16(f) authorizes a District Court to impose sanctions for the breach of a Pretrial Order. In applying these Rules, we recognize that "the failure to disclose in a timely manner is equivalent to failure to disclose," and that a party must produce the required evidence "within deadlines set by the court or risk sanctions under Rules 16 and 37." *Trost v. Trek Bicycle Corp.*, 162 F.3d 1004, 1008 (8th Cir.1998).

[4] While sanctions under Rule 37(c)(1) are mandatory, as we have noted, exclusion of evidence should not apply if the offending party's failure was "substantially justified," or if the failure was "harmless." These exceptions to Rule 37(c)(1)'s imperative serve "to avoid unduly harsh penalties" that may result from an inflexible application of the Rule. Rule 37(c), Federal Rules of Civil Procedure, *Advisory Committee Notes-1993 Amendments*. In determining whether the automatic exclusion provisions of Rule 37(c)(1) should apply, the Court should consider the following four factors in assessing the substantiality of any proffered justification for the failure to disclose, as well as the harmlessness of that failure: 1) the importance of the excluded material; 2) the explanation of the party for its failure to comply with the required disclosure; 3) the potential prejudice that would arise from allowing the material to be used at Trial, or on a Motion; and, 4) the availability of a continuance to cure such prejudice. See, *Citizens Bank v. Ford Motor Co.*, 16 F.3d 965, 966 (8th Cir.1994); *Millen v. Mayo Foundation*, 170 F.R.D. 462, 465 (1996); see also, *Trilogy Communications, Inc. v. Times Fiber Communications, Inc.*, 109 F.3d 739, 744 (Fed.Cir.1997).

[5] It is beyond dispute that Johnson's expert report, and supplemental report, which were produced on August 31, 1998, and November 17, 1998, respectively, were untimely under our Scheduling Order. The untimeliness of Johnson's first expert report was harmless for, after that report was produced, discovery was extended for an additional 45 days, in order to allow for a full inquiry into Johnson's opinions. Indeed, Johnson was deposed on the subject matter contained in his original report and, therefore, Johnson's expert report should not be excluded at Trial. On the other hand, in view of the fact that the untimely disclosure of Johnson's supplemental report denied the Plaintiffs an opportunity to depose Johnson on the new opinions which were added to his initial report, Bridgewood does not fare well under the four-factor test that we are obligated to apply to facially untimely expert disclosures.

Unquestionably, the material that the Plaintiffs seek to exclude in Johnson's supplemental report is important. His supplemental report contains the only qualified expert opinions by Bridgewood, that JP 2-72299 anticipates the claims of the Viken Patent, and that Becnel's unpatented Hydro-Pure device invalidates the Viken Patent. In view of their importance, however, Bridgewood's failure to present a cogent justification for its failure to disclose those opinions, until after discovery had closed, is all the more

confounding. Bridgewood explains that "[e]xpert reports were amended as new information became available." *Def.'s Mem. Supp. Mot. Summ. J.* at 14. Yet, it identifies no piece of information, that Johnson is said to have relied upon, which was not available to Bridgewood earlier in the discovery process. By every appearance, all of the materials Johnson relied upon, in formulating his new opinions, had been in Bridgewood's possession from the very early stages of the litigation.

In any event, as the Court explained in *Trost*, if Bridgewood had a legitimate need to await receiving certain information, before Johnson could disclose his opinions regarding the Hydro-Pure device and JP 2-72299, "then [its] proper course of action would have been to seek an extension of the deadline." See, *Trost v. Trek Bicycle Corp.*, supra at 1008. In sum, because Bridgewood arrogated to itself the right to override the deadlines of our Pre-trial Schedule, and did so to the Plaintiffs' prejudice, and since it is now unable to justify its decision to do so, Bridgewood's violation of the Scheduling Order has not been substantially justified.

The final two factors, which concern the "harmlessness" prong of Rule 37(c)(1), also commend the exclusion of Johnson's supplemental report. The prejudice to the Plaintiffs, in being confronted by expert opinions which were not disclosed until after the period of discovery had elapsed, is compelling. Although a continuance, and a reopening of discovery, might alleviate some of the prejudice inflicted by unfair surprise, such a remedy would wreak its own distinctive prejudice, by unnecessarily prolonging the pretrial processing of the Plaintiffs' claims, with the attendant expense of further discovery, and prolonged Motion practice. *Id.* at 1009. The belated disclosure of Johnson's supplemental expert opinions is not harmless. Therefore, in accordance with Rules 16(f) and 37(c)(1), Johnson's supplemental expert report shall be stricken, and we will not consider its contents for purposes of the Motions before us.

With the Record, and the issues before us, so refined, we turn to the substance of the Summary Judgment Motions, which include a myriad of overlapping contentions. Counsel are commended for the assistance they have provided the Court by their comprehensive, and well-reasoned arguments, which have served to pinpoint the critical distinctions in their respective views.

[6] B. *Standard for Summary Judgment.* The law is settled that the same Summary Judgment standard is to be applied, in Motions involving patent claims, as is applicable in other actions. See, *Union Carbide Corp. v. American Can Co.*, 724 F.2d 1567, 1571 (Fed.Cir.1984); *Itron, Inc. v. CellNet Data Systems, Inc.*, 34 F.Supp.2d 1135, 1138 (D.Minn.1999), citing *Avia Group Int'l, Inc. v. L.A. Gear California, Inc.*, 853 F.2d 1557, 1561 (Fed.Cir.1988). No matter the context in which the Motion arises, Summary Judgment is not an acceptable means of resolving triable issues, nor is it a disfavored procedural shortcut when there are no issues which require the unique proficiencies of a Jury in weighing the evidence, and in rendering credibility determinations. *Celotex Corp. v. Catrett*, 477 U.S. 317, 327, 106 S.Ct. 2548, 91 L.Ed.2d 265 (1986).

Summary Judgment is appropriate, when we have viewed the facts, and the inferences drawn from those facts, in a light most favorable to the nonmoving party, and we have found no triable issue. *Carter v. St. Louis Univ.*, 167 F.3d 398, 400 (8th Cir.1999); *Southwall Technologies, Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1575 (Fed.Cir.1995), cert. denied, 516 U.S. 987, 116 S.Ct. 515, 133 L.Ed.2d 424 (1995). For these purposes, a disputed fact is "material" if it must inevitably be resolved and the resolution will determine the outcome of the case, while a dispute is "genuine" if the evidence is such that a reasonable Jury could return a Verdict for the non-moving party. See, *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248, 106 S.Ct. 2505, 91 L.Ed.2d 202 (1986); *Liebe v. Norton*, 157 F.3d 574, 578 (8th Cir.1998); *Bubble Room, Inc. v.*

United States, 159 F.3d 553, 561 (Fed.Cir.1998).

As Rule 56(e) makes clear, once the moving party files a properly supported Motion, the burden shifts to the nonmoving party to demonstrate the existence of a genuine dispute. In sustaining that burden, "an adverse party may not rest upon the mere allegations or denials of the adverse party's pleading, but the adverse party's response, by affidavit or as otherwise provided in this Rule, must set forth specific facts showing that there is a genuine issue for trial." Rule 56(e), Federal Rules of Civil Procedure; see also, *Anderson v. Liberty Lobby, Inc.*, supra at 256, 106 S.Ct. 2505; *Chism v. W.R. Grace & Co.*, 158 F.3d 988, 990 (8th Cir.1998); *Conroy v. Reebok Intern., Ltd.*, 14 F.3d 1570, 1577 (Fed.Cir.1994). Moreover, the movant is entitled to Summary Judgment where the non-moving party has failed "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." *Celotex Corp. v. Catrett*, supra at 322, 106 S.Ct. 2548; see also, *Greer v. Shoop*, 141 F.3d 824, 826 (8th Cir.1998); *Mayard v. Hopwood*, 105 F.3d 1226, 1228 (8th Cir.1997). No genuine issue of fact exists in such a case because "a complete failure of proof concerning an essential element of the nonmoving party's case necessarily renders all other facts immaterial." *Celotex Corp. v. Catrett*, supra at 323, 106 S.Ct. 2548; see also, *Bell Lumber and Pole Co. v. United States Fire Ins. Co.*, 60 F.3d 437, 441 (8th Cir.1995); *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1537 (Fed.Cir.1991).

C. Legal Analysis. 1. The Patent Issues. Analysis of whether an accused product infringes a patent claim, and whether the patent-in-suit is invalid as anticipated by prior art, each involve two steps. In a patent infringement analysis:

The first step is determining the meaning and scope of the patent claims asserted to be infringed. The second step is comparing the properly construed claims to the device accused of infringing. *Markman v. Westview Instruments, Inc.* ("Markman I"), 52 F.3d 967, 976 (Fed.Cir.1995) (*en banc*), aff'd, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996).

Likewise, a determination of obviousness begins with a construction of the patent claims, followed by a comparison of the properly construed claims to the prior art. *Key Pharmaceuticals v. Hercon Laboratories Corp.*, 161 F.3d 709, 714 (Fed.Cir.1998). However, even if a patent is otherwise valid, if the Court determines "that inequitable conduct occurred in relation to one or more claims during prosecution of the patent application, the entire patent is rendered unenforceable." *Kingsdown Medical Consultants v. Hollister, Inc.*, 863 F.2d 867, 877 (Fed.Cir.1988) (*en banc*), cert. denied, 490 U.S. 1067, 109 S.Ct. 2068, 104 L.Ed.2d 633 (1989).

a. *Claim Construction.* We begin, therefore, with a construction of Claims 1, 2, 3, 4, 12, and 13, of the Viken Patent. The construction of these claims is crucial to the parties' respective arguments with respect to infringement, invalidity, and to the materiality of Viken's disclosures to the PTO. Accordingly, the claim construction process deserves our close analysis.

[7] [8] [9] I. *Methodology.* The construction of patent claims is a legal determination, exclusively within the province of the Court. *Markman v. Westview Instruments, Inc.* ("Markman II"), 517 U.S. 370, 391, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). On Summary Judgment, any factual issues underlying claim interpretation are **not** considered in a light most favorable to the nonmoving party, as the determination is to be made by the Court in the first instance. Cf., *Cybor v. FAS Technologies, Inc.*, 138 F.3d 1448, 1456 (Fed.Cir.1998) (*en banc*) (stating that questions of construction are questions of law for the Judge, and not questions of fact for the Jury); see also, *Personalized Media Communications, LLC v. International Trade Com'n* ("Personalized Media II"), 178 F.3d 1312, 1999 WL 13384 (Fed.Cir.1999) (Table Decision) ("[T]here

are no facts underlying claim interpretation which must be viewed in the light most favorable to the non-moving party."). The construction of patent claims requires an examination of the intrinsic evidence of Record, which includes: (1) the patent itself, including the claims; (2) the specification; and (3) the prosecution history. *Burke, Inc. v. Bruno Independent Living Aids, Inc.*, 183 F.3d 1334, 1339 (Fed.Cir.1999); *Spectrum Int'l, Inc. v. Sterilite Corp.*, 164 F.3d 1372, 1378 (Fed.Cir.1998). This evidence is "the most significant source of legally operative meaning of disputed claim language." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996). In addition, "[t]he court may receive extrinsic evidence to educate itself about the invention and the relevant technology, but the court may not use extrinsic evidence to arrive at a claim construction that is clearly at odds with the construction mandated by the intrinsic evidence." *Karlin Technology, Inc. v. Surgical Dynamics, Inc.*, 177 F.3d 968, 971 (Fed.Cir.1999).

[10] [11] [12] "Claim interpretation begins with the language of the claim itself." *National Recovery Technologies, Inc. v. Magnetic Separation Systems, Inc.*, 166 F.3d 1190, 1195 (Fed.Cir.1999), citing *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 619 (Fed.Cir.1995). The terms of a claim should be given their ordinary meaning unless the inventor intended that the terms should be construed otherwise. *Karlin Technology, Inc. v. Surgical Dynamics, Inc.*, supra at 971; *York Prods., Inc. v. Central Tractor Farm & Family Ctr.*, 99 F.3d 1568, 1572 (Fed.Cir.1996). Thus, a patentee may elect to be his or her own lexicographer, but must do so by clearly setting forth an explicit definition for a claim term. *Johnson Worldwide Associates, Inc. v. Zebco Corp.*, 175 F.3d 985, 990 (Fed.Cir.1999); *Sextant Avionique, S.A. v. Analog Devices, Inc.*, 172 F.3d 817, 825 (Fed.Cir.1999). Usually, the specification is dispositive in claim construction, as " 'it is the single best guide to the meaning of a disputed claim term.' " *Wright Medical Technology, Inc. v. Osteonics Corp.*, 122 F.3d 1440, 1443 (Fed.Cir.1997), quoting *Vitronics Corp. v. Conceptronic, Inc.*, supra at 1582.

As noted, a Court may consider extrinsic evidence, such as expert testimony or dictionaries, " 'to aid the court in coming to a correct conclusion' as to the 'true meaning of the language employed' in the patent." *Markman I*, supra at 1080. However, the Federal Circuit has cautioned against excessive reliance on such extrinsic evidence because, to permit "the public record to be altered or changed by extrinsic evidence would make the right [of the public to rely on that record in designing around existing patents] meaningless." *Vitronics Corp. v. Conceptronic, Inc.*, supra at 1583; see also, *Itron, Inc. v. CellNet Data Systems, Inc.*, supra at 1139 ("excessive reliance on such evidence is inappropriate").

[13] ii. *Application*. The parties agree that the Court need not look beyond the plain meaning of the words of the claims, as explained in the specification, in construing the Viken Patent. We begin with a recognition that each of the thirteen claims of the Viken Patent is a separate statement of the patented invention, see, Title 35 U.S.C. s. 282, and that each claim must be evaluated separately. See, *Milliken Research Corp. v. Dan River, Inc.*, 739 F.2d 587, 593-94 (Fed.Cir.1984). However, Claim 1 is the sole independent claim and, therefore, all of the disputed claims must include its limitations. See, 37 C.F.R. s. 1.75(c).

Therefore, all of the disputed claims incorporate the following by reference, as set forth in Claim 1:

In a fluid replacing apparatus for an automatic transmission an improvement having fluid circulation inlet and outlet ports comprising;

a fluid receiver adapted to be connected to the fluid circulation output port on an automatic transmission;

a source of fresh transmission fluid adapted to be connected to the fluid circulation inlet port on said automatic transmission so that fluid circulates therethrough; and

means connected to said fluid receiver and said source of fresh fluid, for equalizing the fluid flow into said fluid receiver and out of said source of fluid.

Viken Patent, col. 8, 10-24.

The use, in the final paragraph of Claim 1, of the phrase "means *** for" is critical, as it invokes paragraph 6 of Title 35 U.S.C. s. 112.

[14] Ordinarily, it is improper for a Court to limit the scope of a given claim to the examples and embodiments disclosed in the specification. However, paragraph 6 of Section 112 makes an exception to that general rule, for so-called "means plus function" claims, as follows:

An element in a claim for a combination may be expressed as a means or step in performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification or equivalents thereof.

Title 35 U.S.C. s. 112, *paragraph 6*.

This provision has been interpreted to mean that "[t]he proper construction of a means-plus-function limitation requires interpreting the limitation in light of the corresponding structure, material, or acts described in the written description, and equivalents thereof, to the extent that the written description provides such disclosure." *Unidynamics Corp. v. Automatic Prods. Int'l, Ltd.*, 157 F.3d 1311, 1319 (Fed.Cir.1998), citing *In re Donaldson Co.*, 16 F.3d 1189, 1193 (Fed.Cir.1994) (*en banc*). "The 'means' term in a means-plus-function limitation is essentially a generic reference for the corresponding structure disclosed in the specification." *Chiuminatta Concrete Concepts v. Cardinal Indus., Inc.*, 145 F.3d 1303, 1308 (Fed.Cir.1998).

The Federal Circuit holds that the use of the word "means" in a patent claim, in combination with a recited function, "creates a presumption that s. 112, para. 6 applies, and that the failure to use the word 'means' creates a presumption that s. 112, para. 6 does not apply ***." *Personalized Media Communications, LLC v. International Trade Com'n ("Personalized Media I")*, 161 F.3d 696, 703-04 (Fed.Cir.1998) [citations omitted]. Where Section 112, paragraph 6 applies, the structure disclosed in the specification is considered to be a "corresponding structure," under that provision, "only if the specification *** links or associates that structure to the function recited in the claims." *B. Braun Med., Inc. v. Abbott Laboratories*, 124 F.3d 1419, 1424 (Fed.Cir.1997).

The parties agree that Claim 1 is a "means plus function" claim, and that it should be construed in accordance with Section 112, paragraph 6. Further, at least as far as the Plaintiffs' claims of infringement are concerned, we perceive no dispute among the parties that Fig. 3, and its accompanying text-which describe a single tank separated by "flexible, rubber-like diaphragm"-is a "corresponding structure" which may be read into the element of Claim 1 that recites a "means connected to said fluid receiver and said source of fresh fluid, for equalizing the fluid flow into said fluid receiver and out of said source of fluid," and into all dependent claims.

With respect to its assertions of invalidity, however, Bridgewood insists that Claim 1 of the Viken Patent, and the dependent claims, must be construed to encompass all three embodiments described in the specification, as alternative corresponding structures. Bridgewood cites *Lemelson v. United States*, 752 F.2d 1538 (Fed.Cir.1985), and *Baxa Corp. v. McGaw, Inc.*, 981 F.Supp. 1348 (D.Colo.1997), *aff'd*, 185 F.3d 883 (Fed.Cir.1999) (Table Decision), to support this suggested interpretation. In both cases, the Courts refused to construe claims, which themselves did not specify whether their corresponding functions would be accomplished manually or automatically, to require that those functions be performed automatically, even though the specifications repeatedly suggested that operations would be performed automatically. The respective Courts held that, because the specifications did not strictly require that the steps be done automatically, such a limitation would not be read into the corresponding claims. See, *Lemelson v. United States*, *supra* at 1552 ("Even if the specification only discloses apparatus directed to executing automatic repositioning of the workpiece or the measurement device or both, this does not dictate reading such a limitation into the repositioning step of the claim."); *Baxa Corp. v. McGaw, Inc.*, *supra* at 1359 (because the specification did not strictly require it, "claims cannot be limited to automatic actuation").

Both *Lemelson* and *Baxa* are distinguishable, however, because the Courts' analyses were not being applied to claims written in a "means plus function" format. The Federal Circuit, in *Lemelson*, was applying the general rule, that the preferred embodiment of a claim, or inferences drawn from the description of that embodiment, cannot be used to limit claim terms. See, *Johnson Worldwide Associates, Inc. v. Zebco Corp.*, *supra* at 992; see also, *Smith v. Snow*, 294 U.S. 1, 11, 55 S.Ct. 279, 79 L.Ed. 721 (1935) ("the claims of the patent, not its specifications, measure the invention."). As we have observed, however, the statutory allowance of "means plus function" claims, in Section 112, paragraph 6, provides an exception to this general rule. See, *Valmont Industries, Inc. v. Reinke Mfg. Co.*, 983 F.2d 1039, 1042 (Fed.Cir.1993). Bridgewood neglects to mention that, on this distinction, the District Court, in *Baxa*, actually limited its construction of one of the claims to "the electronic control means disclosed in the specification," notwithstanding the Court's refusal to similarly limit other claims, because it was a "means plus function" claim. *Baxa Corp. v. McGaw, Inc.*, *supra* at 1358.

[15] As misplaced as Bridgewood's reliance on *Lemelson* and *Baxa* may be, its argument remains well-taken. Under a "means plus function" analysis, if the specification mentions specific alternative structures, a claim is not limited to the equivalents of a single preferred structure but, rather, each alternative structure is included in the scope of the patent. See, *Serrano v. Telular Corp.*, 111 F.3d 1578, 1583 (Fed.Cir.1997); *CellNet Data Systems, Inc. v. Itron, Inc.*, 17 F.Supp.2d 1100, 1104 (N.D.Cal.1998); *R2 Medical Systems, Inc. v. Katecho, Inc.*, 931 F.Supp. 1397, 1435 (N.D.Ill.1996). It is, in fact, only when the specification merely mentions the possibility of alternative structures, without specifically identifying them, that the Court must refrain from expanding the scope of the claim beyond a single embodiment. See, *Fonar v. General Elec. Co.*, 107 F.3d 1543, 1551 (Fed.Cir.1997), *cert. denied*, 522 U.S. 908, 118 S.Ct. 266, 139 L.Ed.2d 192 (1997). In *Serrano*, for example, the Federal Circuit refused to endorse a construction of a "means plus function" claim that would include only one of multiple structures disclosed in the specification. *Serrano v. Telular Corp.*, *supra* at 1583. There is no distinction to be made here. Therefore, we generally agree with Bridgewood that the valve-operated embodiments, that are described in Figs. 4 and 6 of the Viken Patent, are within the scope of the disputed patent claims.

Claim 13 is the only claim, we believe, that should not include Figs. 4 and 6 within its scope. As a dependent claim, Claim 13 incorporates the limitations of Claim 1 by reference, but it further refines the "means for equalizing the flow" element, by stating that it "is comprised of means disposed intermediate the

fluid receiver and source, said means exhibiting resilient characteristics for exerting a force, related to the pressure existing in the fluid circulation circuit of said transmission and said receiver, upon the fluid in said source." *Viken Patent*, col. 8, 55-61. As such, Claim 13 recites a function beyond equalizing the fluid flow, specifying that the means will accomplish it by interposing a separate means, which exhibits resilient characteristics and exerts a force that corresponds with the pressure from the used transmission fluid, and presses into the compartment holding new transmission fluid. Therefore, in our view, the embodiments described in Figs. 4 and 6, which do not carry out this function, are not "corresponding structures" under Section 112, paragraph 6, in relation to Claim 13. This is so because the structure disclosed in the specification is not a "corresponding" structure unless it is clearly linked, or associated, to the function recited in the claim, and the additional functional limitations, which are set forth in Claim 13, disassociate the embodiments of Figs. 4 and 6 from Claim 13. In essence, the additional function, that is recited in Claim 13, restricts our interpretation of the corresponding structure to the single tank separated by the "flexible, rubber-like diaphragm," as portrayed in Fig. 3. See, *B. Braun Med., Inc. v. Abbott Laboratories*, supra at 1424.

[16] [17] Accordingly, we construe the "means for equalizing the flow" recited in Claim 1 and, by reference, in Claims 2, 3, 4, and 12, to consist of: (1) a closed tank having a flexible, rubber-like diaphragm dividing the tank into two chambers to form the fluid receiver and the fluid source; or (2) a fresh fluid tank and a used fluid tank, connected to inlet and outlet tubes, which are regulated by a gauge at one outlet and a manually-controlled valve connected to a source of pressurized air. For Claim 13, that "means" is only a closed tank having a flexible, rubber-like diaphragm dividing the tank into two chambers to form the fluid receiver and the fluid source.

A separate issue arises with respect to Claims 3, 4, and 12. Dependent Claims 3 and 4 disclose the apparatus of Claim 1, in which the "means for equalizing fluid flow includes means for restricting said flow of fluid from the circulation outlet port," or "includes flow restriction means." *Viken Patent*, col. 8, 29-35. Claim 12 incorporates the elements of Claim 4, and further limits them by stating that the "fluid restriction means is disposed intermediate the fluid receiver and outlet port and the source of fresh fluid and the inlet port." *Id.*, col. 8, 52-54. Under the "means plus function" analysis, Bridgewood proposes to interpret the "flow restriction" means in light of Fig. 3, and hold that the flexible, rubber-like diaphragm, which divides the closed tank, as being the corresponding structure.

The Plaintiffs appear to contend that the structure corresponding to the "flow restriction" means should consist of fluid lines and connectors attached to the outlet port and fluid receiver which, presumably, restrict the fluid flow through a bottleneck principle. The Plaintiffs' position, we believe, is untenable. As noted above, a structure is a "corresponding structure," under Section 112, paragraph six, "only if the specification *** links or associates that structure to the function recited in the claims." *B. Braun Med., Inc. v. Abbott Laboratories*, supra at 1424. Nothing in the *Viken Patent*'s specification associates the drain lines and connectors of Figs. 3, 4, or 6, with the "flow restriction" function that is recited in Claims 3 and 4, and we cannot conclude that those structures are incorporated in the claims' limitations. The only structures, which are described in the specification, and which are plausibly linked to the "flow restriction" function, are the diaphragm contained in the Fig. 3 embodiment, or the air pressure valves shown in Figs. 4-6. Hence, as far as the embodiment of Fig. 3 is concerned, we agree with Bridgewood that the "flow restriction" means of Claims 3, 4, and 12, under the "means plus function" analysis, must be construed as the flexible, rubber-like diaphragm.

[18] Lastly, we confront the strangely worded limitation imposed by Claim 12, which places the flow

restriction means "intermediate," or between, four other parts of the device-the fluid receiver, the outlet port, the source of fluid, and the inlet port-all separated and linked by the word "and." As Bridgewood points out, it is difficult to conceive of the flow restriction means as being "intermediate" to four separate parts of the fluid exchanging machine, without rendering Claim 12 void as indefinite. See, Title 35 U.S.C. s. 112; *Personalized Media I*, supra at 705 (claims must reasonably apprise one, who is skilled in the art, of the scope of the invention). The only construction of this limitation that makes sense, and that avoids being susceptible to a challenge on definiteness grounds,FN14 is to interpret the claim as stating that the "flow restriction" means is simultaneously between two pairs of structures. In other words, the "flow restriction" means is located "between the fluid receiver and the outlet port," and is also positioned "between the source of fluid and the inlet port." Notably, the diaphragm described in Fig. 3 would satisfy both prongs of this element.

FN14. In this regard, our construction of Claim 12 is aided by the Supreme Court's venerable admonition that patents "are to receive a liberal construction, and under the fair application of the rule, ut res magis valeat quam pereat, are, if practicable, to be so interpreted as to uphold and not to destroy the right of the inventor." *Turrill v. Michigan S & N Indiana R Co*, 68 U.S. (1 Wall.) 491, 510, 17 L.Ed. 668 (1863). Consistent with the prevailing law, we construe the claim in a manner that does no violence to its language, and yet preserves its validity. See, *Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed.Cir.1999) (doctrine of liberal claim construction does not empower Court to vitiate plain meaning of words used in claim).

[19] [20] b. *Invalidity by Anticipation*. I. *Standard of Review*. A duly issued patent is presumed to be valid. Title 35 U.S.C. s. 282. The presumption of validity extends to each claim of a patent, independent of the validity of the patent's other claims. *Id.* Section 282 of the Patent Act imposes a burden on an accused infringer, who defends on the grounds of invalidity, to prove invalidity by "clear and convincing evidence." *Id.*; *Al- Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1323 (Fed.Cir.1999). To be "clear and convincing," the "evidence must produce a firm belief or conviction that the matter sought to be established is highly probable and free from serious doubt." *Maxwell v. K Mart Corp.*, 880 F.Supp. 1323, 1329 (D.Minn.1995); cf., *Ulrich v. City of Crosby*, 848 F.Supp. 861, 868 (D.Minn.1994) (evidence that is "clearly convincing" must be sufficient to permit a reasonable Jury to conclude that the matter sought to be proved is "highly probable"). "While a patentee has the burden of going forward with rebuttal evidence once a challenger has presented a prima facie case of invalidity, the presumption of validity remains intact and the ultimate burden of proving invalidity remains with the challenger throughout the litigation." *Mas-Hamilton Group v. LaGard, Inc.*, 156 F.3d 1206, 1216 (Fed.Cir.1998).

[21] Invalidity presents a factual inquiry, properly for the fact-finder in the first instance, *Key Pharmaceuticals v. Hercon Laboratories Corp.*, supra at 714, and should only be decided on Summary Judgment if material facts are not genuinely in dispute. See, *General Elec. Co. v. Nintendo Co.*, 179 F.3d 1350, 1353 (Fed.Cir.1999). Nevertheless, it should be remembered that, in rendering a decision on a Motion for Summary Judgment, a Court must view the evidence presented through the prism of the substantive evidentiary burden that inheres at Trial. See, *Anderson v. Liberty Lobby, Inc.*, supra at 254, 106 S.Ct. 2505; *Rockwell Int'l Corp.*, supra at 1362. Therefore, our appraisal of the evidence must recognize the statutory presumption of validity, as well as the accused infringer's burden to demonstrate invalidity by clear and convincing evidence. If facts are in dispute, then the focal point of our analysis must be in determining whether the resolution of the dispute, one way or the other, would alter the outcome under the "clear and convincing" standard. See, *Monarch Knitting Machinery Corp. v. Sulzer Morat GmbH*, 139 F.3d 877, 880 (Fed.Cir.1998).

ii. *Legal Analysis*. In defending against the Plaintiffs' claims of infringement, Bridgewood maintains that the Viken Patent is invalid as having been anticipated by two published prior art references, and by the public use and sale, in the United States, of the invention disclosed in the Viken Patent. FN15 As pertinent to this defense, the Patent Act provides that [a] person shall be entitled to a patent unless-

FN15. For reasons already expressed, Bridgewood is estopped from asserting that the Viken Patent is void on obviousness grounds.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

* * * * *

(g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it.

Title 35 U.S.C. s. 102.

[22] Under these provisions, a claim is anticipated if each and every limitation is found either expressly, or inherently, in a single prior art reference. *Celeritas Technologies, Ltd. v. Rockwell Int'l Corp.*, 150 F.3d 1354, 1361 (Fed.Cir.1998), cert. denied, 525 U.S. 1106, 119 S.Ct. 874, 142 L.Ed.2d 774 (1999); *Rockwell Int'l Corp.*, supra at 1363. Bridgewood contends that Claims 1, 2, 3, 4, 12 and 13, were anticipated, under each of these provisions, by Becnel's unpatented Hydro-Pure device and, under Section 102(b), by the Becnel Patent and JP 2-72299. These arguments involve vastly different modes of analysis and, therefore, we consider them separately.

(A) *The Unpatented Hydro-Pure Device.*

(I) *Proof of the Invention of the Hydro-Pure.*

At the outset of any examination of Becnel's purported invention, use, and sale of an automatic transmission fluid changing device that, like Fig. 3 of the Viken Patent, used a flexible, rubber-like diaphragm to equalize the inflow and outflow of transmission fluid, is the determination of whether there is sufficient proof that Becnel actually invented the device. On this factual issue, the law puts Bridgewood to the strictest of proofs.

[23] The Supreme Court expressed an early recognition, that "almost every important patent, from the cotton gin of Whitney to the one under consideration, has been attacked by the testimony of witnesses who imagined that they had made similar discoveries long before the patentee has claimed to have invented his device." *Barbed-Wire Co*, 143 U.S. 275, 284-85, 12 S.Ct. 443, 36 L.Ed. 154 (1892). Inventor memories, which are often "prodded by the eagerness of interested parties to elicit testimony favorable to themselves," id. at 284, 12 S.Ct. 443, the testimony of alleged inventors asserting priority over a patentee's rights should, under the governing law, be "regarded with skepticism, and as a result, such inventor testimony must be supported by some type of corroborating evidence" in order to be sufficient to constitute the clear and

convincing evidence necessary to overcome a patent's presumed validity. *Price v. Symsek*, 988 F.2d 1187, 1194 (Fed.Cir.1993); see also, *Finnigan Corp. v. International Trade Com'n*, 180 F.3d 1354, 1367-68 (Fed.Cir.1999) (corroboration rule applies irrespective of the alleged inventor's level of interest in litigation). "While perhaps prophylactic in application given the unique abilities of trial court judges and juries to assess credibility, the rule provides a bright line for both district courts and the PTO to follow ***." *Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1577 (Fed.Cir.1996).

The Court of Appeals for the Federal Circuit endorses a "rule of reason" analysis of the sufficiency of a claim of prior inventorship, as corroborated. The "rule of reason" means only that the Trial Court will conduct an evaluation of all pertinent evidence so that a sound determination of the credibility of the alleged inventor's story can be reached. See, *Ethicon, Inc. v. United States Surgical Corp.*, 135 F.3d 1456, 1461 (Fed.Cir.1998), cert. denied, 525 U.S. 923, 119 S.Ct. 278, 142 L.Ed.2d 229 (1998); *Price v. Symsek*, supra at 1195. The Court has stated that the following factors bear on an inventor's credibility and, generally, on the sufficiency of the corroborating evidence:

- (1) the relationship between the corroborating witness and the alleged prior user,
- (2) the time period between the event and trial,
- (3) the interest of the corroborating witness in the subject matter in suit,
- (4) contradiction or impeachment of the witness' testimony,
- (5) the extent and details of the corroborating testimony,
- (6) the witness' familiarity with the subject matter of the patented invention and the prior use,
- (7) probability that a prior use could occur considering the state of the art at the time,
- (8) impact of the invention on the industry, and the commercial value of its practice.

Woodland Trust v. Flowertree Nursery, Inc., 148 F.3d 1368, 1371 (Fed.Cir.1998), citing *Price v. Symsek*, supra at 1195 n. 3.

The Court is aware of no restriction as to the form of that corroborating evidence. Contemporaneous documents, which are prepared by the putative inventor, circumstantial evidence about the inventive process, and oral testimony of someone besides the claimed inventor, have been held to satisfy the corroboration rule. See, *Ethicon, Inc. v. United States Surgical Corp.*, supra at 1461; *Price v. Symsek*, supra at 1195-96; *Knorr v. Pearson*, 671 F.2d 1368, 1373 (Cust. & Pat.App.1982).

As noted, Bridgewood proffers Becnel as the true inventor of the device disclosed in the disputed claims of the Viken Patent. In order to survive Summary Judgment on this issue, Bridgewood must be able to show that it has sufficient evidence of Becnel's alleged invention of the ostensibly anticipating device, which must include corroborating evidence, from which a reasonable Jury could find, by clear and convincing evidence, that he accomplished such an invention. At the other end of the spectrum, assuming that the Hydro-Pure, as it has been described, actually anticipated the Viken Patent, the Plaintiffs will still survive Summary Judgment if a reasonable Jury could find the evidence, that Becnel came up with such an invention, is not

clear and convincing.

Becnel testified that he modified an EIS model 3400 brake bleeder in order to create a second generation Hydro-Pure, which automatically balanced the ingress and egress of transmission fluid by employing a closed tank, which was separated by a flexible rubber diaphragm, and that he publicly used, advertised, and sold, those devices between 1969 and 1976. *Revised Becnel Decl.* para. 3, 9-16. To corroborate these assertions, Bridgewood submits two of the modified brake bleeder devices, photographs of the devices, Becnel's notes and business records, and the testimony of persons who are neither parties, nor claimed inventors. The Plaintiffs urge that the physical, and documentary, evidence is inadmissible, and that the other witnesses' testimony does not sufficiently corroborate Becnel's assertions so as to permit a reasonable factfinder to conclude that it is clear and convincing.

We first consider the Hydro-Pure devices themselves, which are depicted in photographs taken on December 21, 1998. See, *Hydro-Pure Photographs, Bridgewood App. P25*. The photographs appear to show automatic transmission fluid exchange devices, in which an upper and lower chamber are separated by a diaphragm. Becnel states that these devices are in "substantially the same condition" in which they were when he sold them in 1972 and 1976. *Attesting Declaration of Neil J. Becnel, Bridgewood App. P25*. The Plaintiffs argue that, notwithstanding Becnel's attestation, the devices are not in substantially the same condition as they were during the time period of relevance and, therefore, the photographs are inadmissible under Rule 901, Federal Rules of Evidence.

The authentication requirement of Rule 901 requires that a party, who introduces evidence, must demonstrate a rational basis for that party's representation that the evidence is what it is purported to be. *United States v. Wadena*, 152 F.3d 831, 854 (8th Cir.1998), cert. denied, 526 U.S. 1050, 119 S.Ct. 1355, 143 L.Ed.2d 517 (1999). One variation of this principle-the "chain of custody" rule that is often used in criminal cases-requires a showing that the evidence is in substantially the same condition as it was during the relevant period of time. See, e.g., *United States v. Neal*, 36 F.3d 1190, 1210 (1st Cir.1994), cert. denied, 519 U.S. 1012, 117 S.Ct. 519, 136 L.Ed.2d 407 (1996). However, "even a radically altered item of real evidence may be admissible if its pertinent features remain unaltered." McCormick, *Evidence* s. 212 at 8-9. Two of Becnel's corroborating witnesses, Tony Burke ("Burke") and David Mills ("Mills"), each testified that they had purchased Becnel's modified brake bleeders in 1972 and 1976, and they also testified that Becnel altered these devices before they were proffered for admission into evidence.

Burke recalled that Becnel visited his shop, in either late 1996 or 1997, and offered to perform service on the Hydro-Pure. *Deposition of Tony Burke* at 62-63, *Larus Second Aff., Ex. 3*. According to Burke, Becnel took the device, replaced its fittings, and repainted it. *Id.* at 63-64. Burke stated that no significant modifications were made, but that he did not disassemble the machine after Becnel returned, so as to be sure that a new paint covering, and fitting replacements, were the only improvements. *Id.* at 64-65. Mills had a similar experience in April of 1998, when Becnel asked him if he could "refurbish" the second Hydro-Pure. *Deposition of David Mills* at 55, *Larus Second Aff., Ex. 12*. Mills explained that Becnel "[i]mproved some things on it." *Id.* at 56. It is unclear, from the cited portion of Mills' deposition, what improvements Becnel made. Becnel states that the work on this device was only "maintenance," pursuant to a "lifetime warranty" which he had provided to Mills, and which consisted of "only cleaning, repainting of the metal, changing of the hoses and adding of quick couplings." *Becnel Revised Decl.* para. 15.

[24] No doubt, the Plaintiffs have reason to question the authenticity of Becnel's improved Hydro-Pure devices, as being exemplars of his alleged invention. Their argument, however, that the machines are,

therefore, inadmissible for lack of foundation, simply does not reflect the governing law. Bridgewood's burden of proof, under Rule 901, is slight; it "need only show a foundation from which the factfinder could legitimately infer that the evidence is what the proponent claims it to be." *Link v. Mercedes-Benz of North America, Inc.*, 788 F.2d 918, 927 (3rd Cir.1986). Where, as here, Bridgewood has made a *prima facie* showing, through the inventor's own attestation, that the two Hydro-Pure devices are the ones that he claims to have invented, and that their pertinent features have not changed, any doubts raised by the Plaintiffs simply go to the weight of that evidence, which will be assigned by the trier of fact, and does not go to the admissibility of that evidence. See, *United States v. Kandiel*, 865 F.2d 967, 974 (8th Cir.1989) ("Any question concerning the credibility of the identifying witness simply goes to the weight the jury accords this evidence, not to its admissibility."); *United States v. Reilly*, 33 F.3d 1396, 1409 (3rd Cir.1994) ("contradictory evidence goes to the weight to be assigned by the trier of fact and not to admissibility.") [citation omitted]; *United States v. Albert*, 595 F.2d 283, 290 (5th Cir.1979) ("Any doubts the defendants may have raised about his identification went to the weight and not the admissibility of the tape."), cert. denied, 444 U.S. 963, 100 S.Ct. 448, 62 L.Ed.2d 375 (1979).

We disagree with the Plaintiffs' contention, that allowing the admissibility of the two devices-based upon the authentication of a witness, whose story the devices are intended to corroborate-involves a circuitry of proof. The analysis is circular only if one equates the admissibility of these devices, under Rule 901, with their sufficiency under the clear and convincing standard of proof. As we have explained, evidence that suggests that the devices have been altered will diminish the devices' corroborative weight, but will not affect the admissibility of the devices, as "[t]he ultimate decision as to whether a[n] *** item of *** evidence is as purported is for the trier of fact." 31 M. Graham, *Federal Practice & Procedure: Evidence s. 6821 (Interim Edition)*, p. 669. The fluid changing machines are admissible.FN16 Therefore, the two diaphragm-based automatic transmission exchanging devices, which Burke and Mills allege to have purchased over fifteen years before Viken applied for his patent, are corroborative evidence of Becnel's claim of invention. The demonstrated possibility, that their design has been significantly altered after the Viken Patent issued, would tend to lessen their corroborative effect.

FN16. For the first time in their Reply Memorandum, the Plaintiffs argue that Becnel is guilty of spoliation of evidence, and that Bridgewood should be sanctioned accordingly, because Becnel altered one of the Hydro-Pure fluid changing devices after he had been retained as an expert witness in this case. On this Record, there has been no demonstration that Becnel's alteration was significant, or of a degree to infer that the alteration was intentional, fraudulent, or done with a desire to frustrate the search for the truth-showings that would warrant such exclusion, or an unfavorable inference instruction to the Jury. Cf., *SDI Operating Partnership, L.P. v. Neuwirth*, 973 F.2d 652, 655 (8th Cir.1992). Indeed, Becnel had given his purchasers a "lifetime warranty," which would offer a plausibly innocent reason for his actions. As a result, based upon the facts before us, spoliation has not been shown.

As additional corroborative evidence, Bridgewood submits a hodgepodge of Becnel's sometimes illegibly handwritten notes, grainy copies of Polaroid photographs, business records, and old advertisements. See, *Bridgewood App. P7*. Most of the notes and photographs were made in 1995 or later, which minimizes their corroborative impact. See, *Becnel Depo.* at 85, 136-38. Still, descriptions from 1995 of an automatic transmission fluid exchanging device, that equalized the fluid flows with a rubber diaphragm, could corroborate Becnel's story, at least to the extent that they could show that he did not concoct the device after Bridgewood was accused of infringement.

One page of notes, in which the author writes, "The diaphragm looks perfect," also contains the notation: "May 1971 sold it to David." *Notes, Bridgewood App. P7*. Yet the same paper is filled with notations dated from January to April of 1998, which suggests that the description of the alleged 1971 sale was made after this case started, thereby minimizing any corroborative value. Strangely, Bridgewood produced two materially different copies of the same page of Becnel's notes, which were apparently made in 1995. The first, which refers to the sale to Mills, states: "Sold it years later to him Aug. 1978." *Notes, Larus Second Aff., Ex. 80*. In a second copy of that document, "Aug, 1978" is crossed out in a different color ink, and is replaced with "May, 71." *Notes, Larus Second Aff., Ex. 81*. In light of the material alteration that was obviously made after this action was commenced, this paper has little to no evidentiary value. On the whole, Becnel's notes are sketchy at best, and critical portions, which purport to establish the dates of Becnel's invention, public uses, and sales, appear to have been written long after the fact and, in some cases, after this litigation commenced. Taken as a whole, Becnel's notations have minimal corroborative value.

Beyond Becnel's notations, Bridgewood has supplied a wealth of other materials that tend to corroborate Becnel's testimony. There is a diagram of the brake bleeder, that Becnel claims to have modified, which shows that the device, as it was sold in the late 1960's, used a diaphragm between the upper and lower chamber, which separated brake fluid from pressurized air. See, *Operation and Maintenance Manual for T3400 Hydraulic Brake Diaphragm Type Pressure Bleeder, Bridgewood App. P7*. An undated advertisement for Becnel's fluid changer contains a picture of what resembles the brake bleeder device attached to a vehicle's engine. *Hydro-Pure Advertisement, Bridgewood App. P7*. Moreover, there is considerable documentary evidence of the sale of a Hydro-Pure to Mills, in March of 1976, which consists of a bill of sale, check stubs, and two canceled checks. See, *Bridgewood App. P18*. An undated photograph shows a sign in front of Mills' repair shop-Artistic Auto Repairs-which declares: "The Automatic Transmission Life Saver is Here." *Photograph, Bridgewood App. P7*. None of these items disclose how Becnel's alleged invention worked but, read together, they support his contention that he was able to transform a brake bleeder into his claimed automatic transmission fluid exchanging device, and that the device was commercially sold and used.

Lastly, there is the testimony of Burke and Mills, who are admittedly friends of Becnel. Burke testified that he purchased a modified brake bleeder from Becnel on June 30, 1969, and has since used it commercially to change automatic transmission fluid on a regular basis. *Burke Depo. at 16, 62, Bridgewood App. P16*. Likewise, Mills testified that he bought a Hydro-Pure modified brake bleeder in 1976, and frequently used it to make automatic transmission fluid changes at his repair shop. *Mills Depo. at 25-26, 30-31, Bridgewood App. P17*.

Citing the *Woodland Trust* criteria, the Plaintiffs argue that inconsistencies in the evidence, which purports to support Becnel's claimed invention, when combined with other factors that would tend to diminish the witnesses' credibility, should prevent a reasonable Jury from finding the evidence of the claimed invention to be both clear and convincing. They cite the undisputed fact that there has been a significant, thirty-year lapse of time between Becnel's alleged prior invention and this proceeding, that Becnel is being paid as an expert in this matter, and that he never sought to patent his modified brake bleeder design, as tending to weigh against the credibility that might otherwise be afforded to his testimony.

More significantly, Becnel's recollection of the relevant events has not remained consistent and, at times, has varied with that of Burke's and Mills' assertedly corroborating testimony. Becnel's claim, that he sold a Hydro-Pure to Burke on June 30, 1969, see, *Becnel Decl. para. 14; Revised Becnel Decl. para. 14; Becnel Depo. at 111*, was flatly contradicted by evidence that the brake bleeder, which had been allegedly modified

to make the device, was not manufactured until at least December of 1970. *Deposition of Richard Kondracky* at 22. After being informed of this fact, Becnel recanted, and explained that he sold the device in 1972, or "somewhere in that neighborhood." *Second Deposition of Neil J. Becnel* at 62-63, *Larus Second Aff., Ex. 2*. Becnel's revised testimony, as to when he sold the Hydro-Pure to Burke, is now inconsistent with Burke's previously confirming testimony-that the device had been purchased on June 30, 1969. In another instance, Becnel had testified that he bought all of the brake bleeder machines from Bienville Auto Parts. *Becnel Decl.* para. 9; *Revised Becnel Decl.* para. 9; *Becnel Depo.* at 77. Later, Becnel testified that he bought one of them from Late Model Auto Parts. *Second Becnel Depo.* at 32. With respect to the device that he allegedly sold to Mills, Becnel stated that the sale took place in or about May of 1971. *Becnel Decl.* para. 15; *Revised Becnel Decl.* para. 15; *Becnel Depo.* at 123-24. When Mills later testified that he purchased the device in 1976, see, *Mills Depo.* at 25-26, Becnel revised his testimony to conform with that of Mills. *Second Becnel Depo.* at 127. There are other minor inconsistencies, such as whether Becnel showed Burke the Hydro-Pure before the date of purchase, rather than on the same day, and as to how much Mills paid for the device.

Moreover, there is tension between Becnel's Declaration, and his deposition testimony, concerning the details of his allegedly anticipating invention, which Plaintiffs interpret as suggesting his lack of familiarity with the details of his invention, that should cast further doubt on his recollections. In our view, however, the Plaintiffs misconstrue the import of Becnel's testimony. As he explained in his revised Declaration, the Hydro-Pure used a diaphragm to regulate the flow of fluids, and was operated by filling the upper chamber of the device with automatic transmission fluid, and then pumping the used fluid into the lower chamber, which caused the new fluid to exit the upper chamber at a rate identical to the influx of old fluid-hence, the equalization of the flow of fluid into the tank, and out of the tank, was automatically regulated. *Revised Becnel Decl.* para. 9-10. Becnel, though not a patent expert, considered this device to contain all of the elements recited in at least Claims 1-4, and 13, of the Viken Patent. *Becnel Decl.* para. 10. At his deposition, Plaintiffs' counsel asked whether the Hydro-Pure included a "means for restricting said flow of fluid from the fluid circulation outlet port," as described in Claim 3 of the Viken Patent. Becnel responded: "There is no restriction at all," for "[a]ll it is is just pressure going to the system ***." *Becnel Depo.* at 107. When asked whether the Hydro-Pure contained "means for equalizing the flow of fluid," that included "flow restriction means," as stated in Claim 4 of the Viken Patent, Becnel replied that "it" has "nothing to do with the diaphragm." *Id.* at 108-09. In a follow-up question, counsel asked:

Well then with regard to what is in Claim 4, you have got nothing that corresponds to that in your Exhibit I device; is that correct?

Id. at 109.

Becnel responded, "Right," "[t]hat would be the diaphragm." *Id.* at 109. We do not interpret this testimony as reflecting a denial, by Becnel, that the diaphragm in the Hydro-Pure provides a means of "flow restriction," although counsel's questions certainly appear to have tripped him up. At bottom, Becnel's testimony remained clear that the diaphragm regulated the flow through "pressure going into the system ***." *Id.* at 107. Whether the diaphragm qualifies as a means of "flow restriction," as required in Claims 3 and 4 of the Viken Patent, is an issue separate from Becnel's familiarity with his alleged invention. Nothing in the deposition testimony, which has been cited by the Plaintiffs, suggests that Becnel lacks a familiarity with the workings of the Hydro-Pure.

[25] Considering the evidence in its totality, at this Summary Judgment stage, and in a light most favorable

to Bridgewood, we cannot foreclose the possibility that a reasonable Jury could conclude that Bridgewood has shown, by clear and convincing evidence, that Becnel invented an automatic fluid transmission exchanging device that used a rubber diaphragm to equalize fluid flows. It is important to emphasize that, viewing the evidence through the prism of the clear and convincing evidentiary standard, as further refined through the factors set forth in *Woodland Trust*, does not empower a Court to invade the province of the Jury, by weighing the evidence and by rendering credibility determinations. The Supreme Court has emphasized, in the following comment, that a higher evidentiary burden on the nonmovant does not authorize a Court to depart from its limited role on Summary Judgment:

Our holding that the clear-and-convincing standard of proof should be taken into account in ruling on summary judgment motions does not denigrate the role of the jury. It by no means authorizes trial on affidavits. Credibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the facts are jury functions, not those of a judge, whether he is ruling on a motion for summary judgment or for a directed verdict. The evidence of the non-movant is to be believed, and all justifiable inferences are to be drawn in his favor.

Anderson v. Liberty Lobby, Inc., supra at 255, 106 S.Ct. 2505 [citation omitted]. This principle was applied by the Federal Circuit in *Beachcombers v. WildeWood Creative Products, Inc.*, 31 F.3d 1154 (Fed.Cir.1994), a patent infringement case in which the Court held that an entry in a date book, which concerned a party at which a purported inventor allegedly demonstrated her invention to others, as coupled with the physical production of the invention at Trial, and oral testimony of friends who attended the party, was sufficient corroborating evidence of prior public use to support a Jury Verdict of invalidity.

The patentee had urged, in *Beachcombers*, that the corroborating evidence should have been discounted because the inventor was not a disinterested witness, her Trial testimony was self-contradictory and was inconsistent with her deposition testimony, and the claimed inventor could not remember the date on which she had demonstrated the device. Notwithstanding the clear and convincing evidentiary standard, and the inconsistencies in the inventor's testimony, the Court refused to overturn the Verdict, explaining as follows:

[The inventor's] oral testimony was adequately corroborated by physical evidence, i.e., the entry in her date book and the [device] itself, and, if accepted at face value, meets the clear and convincing standard required. The jury chose to believe the evidence in spite of these purported deficiencies, which it was entitled to do as these factors all relate to *** credibility. We have no warrant to override the jury's decision on the basis of these factors. That would usurp the prescribed function of the jury.

Id. at 1160.

As we have noted, Becnel's claim of prior invention is corroborated by two of the machines that he claimed to have invented, the testimony of two witnesses who claim to have bought them years before Viken applied for his patent, and documentary evidence that generally supports Becnel's claim. It is true, as the Plaintiffs argue, that the numerous inconsistencies between the witnesses' testimony detracts from their overall credibility but, nevertheless, the Jury is responsible for resolving conflicting evidence and making credibility determinations. On Summary Judgment, we may only determine whether competent evidence "presents a sufficient disagreement to require submission to a jury or whether it is so one-sided that one party must prevail as a matter of law." *Id.* at 251-52, 106 S.Ct. 2505.

Becnel, and his corroborating witnesses' testimony, concur on the crucial point that the devices, which

Becnel claims to have invented, were in fact invented, were publicly used, and were sold years before the Viken Patent. While disputed, the same point is further corroborated by the devices themselves, as well as the documentary evidence which suggests that they were manufactured, used, and sold, by no later than 1976. Given these showings, Bridgewood set forth the requisite quantum of evidence to meet the corroboration rule, see, *Ethicon, Inc. v. United States Surgical Corp.*, supra at 1461, 1465, and we may not properly test the believability of Becnel's factual showings without impermissibly usurping the essential role of the Jury. See, *Anderson v. Liberty Lobby, Inc.*, supra at 255, 106 S.Ct. 2505.

On the other side of the cross-Motion, even assuming that the Hydro-Pure fully anticipated each of the claims of the Viken Patent, Bridgewood has not shown the absence of a genuine issue of material fact as to Becnel's claim of inventorship so as to permit Summary Judgment in its favor. Keeping the governing evidentiary standard in mind, Bridgewood is not entitled to Summary Judgment for the simple reason that the Jury may not be persuaded, by clear and convincing evidence, that the Hydro-Pure conception anticipated the Viken Patent. The Plaintiffs have identified substantial evidence in the Record, which is addressed to the *Woodland Trust* criteria, and upon which a reasonable Jury could reject Becnel's assertions. In sum, whether Becnel, in fact, invented the device that he claims to have invented is genuinely disputed, and a reasonable Jury could decide the issue either way.

(II) Comparison of the Claims of the Viken Patent to the Hydro-Pure.

As noted, given the material dispute surrounding Becnel's allegation of inventorship, Bridgewood is precluded from obtaining Summary Judgment on its claim, that the Viken Patent is invalid over the unpatented Hydro-Pure device, and we need not address its argument, that the Hydro-Pure device, as Becnel has described it, contained every element of Claims 1, 2, 3, 4, 12, and 13, of the Viken Patent. Ultimately, any comparison of these claims will be intertwined with the credibility of Becnel's story which, necessarily, will require the truth-seeking proficiencies of the Jury. As the Plaintiffs' arguments have illustrated, a reasonable factfinder could decide that the Hydro-Pure devices, which Bridgewood has proffered, had a materially different configuration before October 23, 1991 or, at least, that clear and convincing evidence does not support Bridgewood's contention that the Hydro-Pure devices are identical to what Becnel claims to have invented. With the configuration of Becnel's alleged invention open to serious debate, an exacting comparison of that device, to the Viken Patent, is best reserved for Trial. Cf., *Hay & Forage Industries v. New Holland North America, Inc.*, 25 F.Supp.2d 1195, 1199 and n. 3 (D.Kan.1998), appeal dismissed, 1999 WL 426360, 194 F.3d 1337 (Slip Op.) (Fed.Cir.1999).

We must, nevertheless, engage in some comparison of the devices in order to properly resolve the Plaintiffs' Motion for Summary Judgment. In support of their Motion for Summary Judgment, the Plaintiffs argue that, even accepting Becnel's claim of inventorship as true, Bridgewood has set forth no competent evidence that Claims 3, 4, and 12, of the Viken Patent, are anticipated by the Hydro-Pure. This argument necessarily, and now correctly, presumed that the Court would exclude Johnson's supplemental expert report, which had opined, two days after the close of discovery, that the Becnel Hydro-Pure device anticipated Claims 1, 2, 3, 4, 12, and 13, of the Viken Patent. Absent that report, what is left on this issue is Becnel's testimony, and the physical evidence, including the Hydro-Pure devices themselves, as the only evidence from which a Jury could find that the Hydro-Pure possesses all of the limitations of the pertinent Viken Patent claims.

The Plaintiffs' assertion, that this evidence is insufficient to raise a genuine issue of material fact with respect to Claims 3, 4, and 12, is misguided. They premise this argument on two deficiencies in Becnel's testimony. First, the Plaintiffs contend that Becnel admitted that his inventions did not contain a "means for

restricting flow of fluid from the fluid circulation port," or a "flow restriction means," which are respectively elements of Claims 3 and 4 of the Viken Patent. See, *Becnel Depo.* at 107-08. As previously noted, Becnel testified that his machine worked through the symmetrical pressure created by the diaphragm. *Id.* at 107-109.

The Plaintiffs appear to be arguing that, in light of Becnel's admission, there is no evidence that the Hydro-Pure diaphragm comprises a means of "flow restriction." Yet, we have construed dependent Claims 3 and 4 as "means plus function" claims, such that the "flow restriction" means will necessarily cover a "corresponding structure disclosed in the specification," see, Title 35 U.S.C. s. 112, *paragraph 6*; *Chiuminatta Concrete Concepts v. Cardinal Indus., Inc.*, at 1308, including the single tank separated by a "flexible, rubber-like diaphragm," that is disclosed in Fig. 3. Regardless of Becnel's testimony, taking the facts in a light most favorable to Bridgewood, we cannot hold, as a matter of law, that the diaphragm provides a means for flow restriction under Claims 3 and 4 of the Viken Patent, and yet, what appears to be an equivalent structure in the Becnel Hydro-Pure does not contain that element.

Nor are we persuaded that Becnel's failure to state, in his expert reports, that his alleged invention anticipated Claim 12 of the Viken Patent, negates any issue of material fact on that question which might have otherwise existed. By its terms, Claim 12 discloses the "apparatus of claim 4 in which restriction means is disposed intermediate the fluid receiver and the outlet port and the source of the fluid and the inlet port." If a reasonable Jury concludes, as it may, that the Becnel Hydro-Pure design anticipated Claims 3 and 4, then the same Jury could certainly find, notwithstanding Becnel's failure to explicitly allege it, that the diaphragm in the Becnel Hydro-Pure device lies between the fluid receiver and the outlet port, and between the fluid source and the inlet port. Such a placement of the diaphragm appears fairly certain from Becnel's description of the Hydro-Pure.

As a consequence, neither cross-Motion for Summary Judgment successfully demonstrates that the invalidity of the Claims of the Viken Patent, over the Becnel Hydro-Pure, is an issue that may be resolved as a matter of law. The allegation of prior inventorship, and a comparison of whatever Becnel may have invented with the Viken Patent, are issues that are properly entrusted to the Jury's resolution. Accordingly, both Motions are denied.

(B) *The Becnel Patent.* Bridgewood's assertion, that the Viken Patent is invalid, over the Becnel Patent, presents a more finite set of considerations, which chiefly concern whether the Becnel Patent discloses a means for "equalizing the fluid flow," into and out of a vehicle's transmission. Secondly, the parties' dispute turns on whether the Becnel Patent's alleged *manual* flow equalization could have anticipated the Viken Patent, which the Plaintiffs claim teaches only *automatic* means.FN17

FN17. This issue has already been resolved by our construction of the disputed Viken Patent claims-with the exception of Claim 13-to read upon each of the alternative embodiments that are disclosed in the specification. See, *Serrano v. Telular Corp.*, 111 F.3d 1578, 1583 (Fed.Cir.1997); *CellNet Data Systems, Inc. v. Itron, Inc.*, 17 F.Supp.2d 1100, 1104 (N.D.Cal.1998); *R2 Medical Systems, Inc. v. Katecho, Inc.*, 931 F.Supp. 1397, 1435 (N.D.Ill.1996). While we have no quarrel with the Plaintiffs' argument, that manual methods of accomplishing a task do not anticipate patents disclosing an apparatus that automatically performs the same task, see, e.g., *In re Prater*, 56 C.C.P.A. 1381, 415 F.2d 1393, 1406 (Cust. & Pat.App.1969) (pencil, paper, and ruler used to perform manual calculation "do not anticipate claimed 'means,' since the former additionally require human manipulation."), here, two of the embodiments of Claims 1, 2, 3, 4, and 12, of the Viken Patent require manual equalization of fluid flows, and that principle

is inapt.

(I) Comparison of the Becnel Patent with Claim 1 of the Viken Patent.

As the sole independent claim, Claim 1 is the most crucial for, like the first in a row of dominoes, how that first claim is construed could topple the dependent claims. The key element of Claim 1, when comparing it to the Becnel Patent, is the disclosure of means for equalizing the fluid flow into the fluid receiver, and out of the fluid source. See, *Viken Patent*, col. 8, 21-24. In the parties' opposing Summary Judgment Motions, the critical issue is whether there is a genuine dispute that the Becnel Patent also discloses a means for equalizing flows between the fluid source and fluid receiver.

We first consider whether any such limitation can expressly be found within the prior art reference. See, *Celeritas Technologies, Ltd. v. Rockwell Int'l Corp.*, supra at 1361; *Rockwell Int'l Corp.*, supra at 1363. There is little question that the Becnel Patent does not expressly teach a means for equalizing the flow of used fluid into the receiver, and new fluid out of the fluid source. Cf., *Viken Patent*, col. 8, 20-23. We find nothing in the language of the Becnel Patent itself, that expressly discloses such a limitation, and Bridgewood has drawn no such limitation to our attention. Accordingly, we hold that the Becnel Patent does not expressly disclose a means for equalizing fluid flow.

[26] The inquiry does not end there, however, for even "[i]f the prior art reference does not expressly set forth a particular element of the claim, that reference still may anticipate if that element is 'inherent' in its disclosure." *In re Robertson*, 169 F.3d 743, 745 (Fed.Cir.1999). Under the doctrine of inherency, a patent claim will be anticipated by a prior art reference if extrinsic evidence "make[s] clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed.Cir.1991). Therefore, inherency may not be established by possibilities, or even probabilities. " 'The mere fact that a certain thing may result from a given set of circumstances is insufficient to prove anticipation.' " *Electro Medical Systems, S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1052 (Fed.Cir.1994), quoting *id.* at 1268-69.

In essence, Bridgewood contends that the Fig. 5 of the Becnel Patent, and its accompanying specification, would teach one of ordinary skill in the art that automatic flow equalizing is necessarily present in the reference. As noted, Fig. 5 shows a pair of gauges on the outlet and inlet ports, and an associated flow control valve. Becnel maintains that the invention disclosed in the Becnel Patent "allowed the operator to adjust the pressure of the fluid being introduced into the transmission so as to balance the flow going into the transmission, through the oil outlet line, with the flow going out of the transmission, into a waste receptacle." *Id.* para. 5. He explains that the pair of flow rate gauges, which are connected to the outlet and inlet ports, as combined with a ball valve which would throttle back the fresh inflow, "represent a complete means for 'equalizing the fluid flow into the fluid receiver and out of the source of fluid,' " as required by the Viken Patent. Johnson-Bridgewood's patent expert-counters that the specification, which is associated with Fig. 5 of the Becnel Patent, "would teach one of ordinary skill in the art how a throttling valve can be used to limit the flow rate of new ATF (as indicated to be passing the first flow meter) so that the inflow rate of new ATF can be balanced with the rate at which old ATF is being pumped out of the transmission ***." *Johnson Decl.* para. 16.

[27] By comparison, the pertinent text of the Becnel Patent states that the advantage of the variation, which

is associated with Fig. 5, "is that the output gauge and the discharge gauge are equally visible from the vantage point of the operator," and "[w]hen the gauge indicates that the same amount of fluid has been discharged in the receptacle, as was forced out of the tank by the air line, it is time to shut down the procedures, reconnect the line to the discharge pipe and bring the transmission to the proper level by conventional methods." *Becnel Patent*, col. 2, 63-73. In view of the text associated with Fig. 5 of the *Becnel Patent*, which gives no indication that flow equalization would necessarily be present in the described embodiment, something more than entirely conclusory expert opinions are required to support an inference that prior art reference teachings that, although not expressly disclosed, are necessarily present in the *Becnel Patent*. See, *Motorola, Inc. v. Interdigital Technology Corp.*, 121 F.3d 1461, 1473 (Fed.Cir.1997) ("An expert's conclusory testimony, unsupported by the documentary evidence, cannot supplant the requirement of anticipatory disclosure in the prior art reference itself"); *Ashland Oil, Inc. v. Delta Resins & Refractories*, 776 F.2d 281, 294 (Fed.Cir.1985) (generally, opinion testimony of experts is entitled to some weight, but lack of factual support may render testimony of little probative value in a validity determination), cert. denied, 475 U.S. 1017, 106 S.Ct. 1201, 89 L.Ed.2d 315 (1986); *Jamesbury Corp. v. Litton Indus. Prods., Inc.*, 756 F.2d 1556, 1563 (Fed.Cir.1985) (granting JNOV on validity when the Record as a whole, including the apparent content of the prior art reference, did not support an expert's conclusory testimony of anticipation). Bridgewood has colorably demonstrated that *Becnel* was able to read the fluid gauges, and then manually adjust the flow of fresh fluid so as to equalize the fluid flows, but neither his declaration, nor Johnson's opinion, offer any explanation as to how a person of ordinary skill would read the *Becnel Patent* specification, and recognize that this method of flow equalization is **necessarily present** in the embodiment disclosed in Fig. 5. In light of this failing, no reasonable Jury could conclude that Bridgewood has shown, by clear and convincing evidence, that Claim 1 of the *Viken Patent* is anticipated by the *Becnel Patent*.

(II) Comparison of the Becnel Patent with Claims 2, 3, 4, 12, and 13, of the Viken Patent.

A comparison of the remaining, assertedly invalid claims in the *Viken Patent*, with the *Becnel Patent*, need not long detain us. Since all of these claims are ultimately dependent upon Claim 1, and not every element of Claim 1 is present in the *Becnel Patent*, they cannot be anticipated by the *Viken Patent*. See, *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1255 n. 4 (Fed.Cir.1989). Therefore, the Plaintiff's Motion for Summary Judgment on Bridgewood's affirmative defense, that the *Viken Patent* is invalid over the *Becnel Patent* is granted, and Bridgewood's Motion for Summary Judgment on that issue is denied.

(C) *JP 2-72299*. Similar concerns arise from a comparison of *JP 2-72299* with the *Viken Patent* claims. The Plaintiffs dispute that the Japanese patent discloses the last element of Claim 1 of the *Viken Patent*-namely, the means for equalizing the fluid flow into the receiver and out of the source of fluid.

(I) Comparison of JP 2-72299 with Claim 1 of the Viken Patent.

[28] The plain text of *JP 2-72299* reveals a striking difference, from the *Viken* invention, in the way in which it exchanges old and new fluid in an automatic transmission. While the ascribed function of the means in Claim 1 of the *Viken Patent* directly equalizes the **flow** of fluid into the fluid receiver, and out of the fluid source chamber, the conception described in *JP 2-72299*, through its weight detectors, control board, and pressure valves, aspires to minimize the net difference between the amount of fluid drained, and the amount of fluid supplied, which indirectly yields an overall balance in flows into, and out of, the fluid chambers. To be precise, *JP 2-72299* describes an apparatus in which the means of flow control are linked to weight detectors for each tank, and a control board that dictates a permissible range of difference between the weight of the two tanks, so that the device "automatically balances the amount of fluid drained and the

amount of fluid supplied within an indicated range to resolve [the problems associated with manual balancing of the flow rate of used and new automatic transmission fluids]." *JP 2-72299* at 15.

Bridgewood's equation of *JP 2-72299*'s automatic balancing of the amount of fluid drained and added to a transmission, with the flow equalization function that is described in Claim 1 of the Viken Patent, is untenable. A symmetry in fluid circulation, between the fluid source and receiver, is not expressly claimed by *JP 2-72299*, nor does it appear to be inherent in *JP 2-72299*'s weight balancing device. Although the Japanese conception provides a means for regulating the flow of incoming and outgoing fluid, Bridgewood does not dispute that the fluid regulation is aimed at maintaining a chosen differential between the total of automatic transmission fluid "**supplied**," and "**drained**." If the amount of fluid drained from a transmission begins to exceed the amount added by too much, then the control board, pump, and control valves, will alter the fluid flows in order to eliminate the difference. The device described in *JP 2-72299* could function perfectly, according to plan, with never-equal outlet and inlet flows alternately ebbing and surging, and yet the overall amounts of fluid drained, and supplied, would remain within the indicated range. *JP 2-72299* discloses no apparatus that would prevent that from happening.

By comparison, Claim 1, even in the alternative, manually-operated embodiments-in which used fluid is nonetheless "drained at substantially the same rate as clean, fresh fluid is added," *Viken Patent*, col. 5, 51-53-goes beyond equalization of the total amount of fluid drained and supplied, and claims a means of equalizing the rate of flow itself. As a consequence, not all of the elements of the Viken Patent are present in this prior art reference.

Bridgewood sets forth no extrinsic evidence, much less clear and convincing evidence, that supports its argument that *JP 2-72299* anticipates Claim 1 of the Viken Patent, under the doctrine of inherency, which would disturb our reading of *JP 2-72299*. Becnel offered a bald conclusion, that *JP 2-72299* discloses a means for equalizing the fluid flow into the receiver and out of the source of the fluid, see, *Revised Becnel Decl.* para. 38, but his expert report cited nothing in the text of the Japanese patent to support his conclusion, and he could not explain this opinion at his deposition. *Becnel Depo.* at 181-82. Becnel's unsupported opinions are insufficient to avoid Summary Judgment. See, *Motorola, Inc. v. Interdigital Technology Corp.*, supra at 1473; *Ashland Oil, Inc. v. Delta Resins & Refractories*, supra at 294; *Jamesbury Corp. v. Litton Indus. Prods., Inc.*, supra at 1563.FN18

FN18. We have excluded Johnson's supplemental expert report because of its untimeliness but, even if Johnson's untimely opinions were considered, they would be equally ineffective in raising a genuine issue of material fact. One can accept Johnson's opinion, that "*JP 2-72299* discloses that the amount of fluid drained and added to the transmission is equalized automatically, with no operator input, through the use of a control board having a CPU and a memory storage unit," without undercutting our finding that *JP 2-72299* provides no means for equalizing intake and outlet flows. See, *Supplemental Declaration of Eugene L. Johnson* para. 5, *Supplemental Expert Report of Eugene L. Johnson*. From this relatively uncontroversial opinion, Johnson makes the unsupported leap that *JP 2-72299* thereby discloses an equivalent means of equalizing fluid flow. *Id.* para. 6. As we have observed, however, flow equalization is not necessarily present in *JP 2-72299*.

In the final analysis, *JP 2-72299* does not ordain the equality of fluid flows, but only regulates so that the total amount drained and added to the transmission will be kept within a specified range. The difference is more than semantic, since Viken's criticism of the prior art made it clear that inequality in fluid **flows**

resulted in damaging starvation, or excessive pressure within the transmission, and his patent claims an equalization of the flows to solve that precise problem. See, *Viken Patent*, col. 2, 56-68. Since flow equalization is not necessarily present, even the possibility that it may result in the operation of JP 2-72299 "is insufficient to prove anticipation." See, *Electro Medical Systems, S.A. v. Cooper Life Sciences, Inc.*, supra at 1052. Taking the disputed facts, in a light most favorable to the Plaintiffs, Bridgewood has not shown, by clear and convincing evidence, that JP 2-72299 anticipated Claim 1 of the Viken Patent.

(II) Comparison of JP 2-72299 with Claims 2, 3, 4, 12, and 13 of the Viken Patent.

Echoing the Becnel Patent's ostensible anticipation of dependent Claims, not every element of Claim 1 is present in the JP 2-72299 and, thus, its dependent claims cannot be anticipated by it. See, *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, supra at 1255 n. 4. Therefore, the Plaintiff's Motion for Summary Judgment on Bridgewood's affirmative defense, that the Viken Patent is invalid over JP 2-72299, is granted, and Bridgewood's Motion for Summary Judgment on that issue is denied.

c. *Obviousness*. Summary Judgment must be granted in favor of the Plaintiffs on Bridgewood's contention, that Claims 1, 2, 3, 4, 12, and 13, of the Viken Patent, would have been obvious to one of ordinary skill in the art. Bridgewood is estopped from advancing this contention because of its failure to make it known to the Plaintiffs before raising it at the Summary Judgment stage.

d. *Infringement*. Next, we turn to the Burman Patent, which discloses a fluid exchanging device that employs a closed cylindrical chamber, in which used and fresh fluid are separated by a free-floating piston. The opposing Motions for Summary Judgment address all of the disputed claims, with a nearly point-counterpoint symmetry, except that the Plaintiffs do not seek Summary Judgment on their claim that Bridgewood's automatic transmission fluid exchanging device infringes Claim 13 of the Viken Patent. Our analysis of these allegations of infringement is necessarily curtailed by our decision to estop Bridgewood from denying that it infringed Claims 1, 2, 3, 4, and 12, of the Viken Patent. Summary Judgment is granted in favor of the Plaintiffs on those issues, although resolution of Bridgewood's liability necessarily awaits a decision on Bridgewood's affirmative defenses. In practical terms, therefore, our focus is drawn to Bridgewood's Motion for Summary Judgment on the Plaintiffs' assertion, that Bridgewood's fluid changing apparatus infringes Claim 13 of the Viken Patent.

[29] [30] i. *Standard of Review*. Patent infringement occurs when a device, that is literally covered by the claims of an existing patent, or is equivalent to the claimed subject matter, is made, used, or sold, without the authorization of the patent holder, during the term of the patent. See, Title 35 U.S.C. s. 271; *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1476 (Fed.Cir.1998). When the domestic production, use, or sale, of an accused device is not in issue, then, to show infringement of a patent, a patentee need only "supply sufficient evidence to prove that the accused product or process contains, either literally or under the doctrine of equivalents, every limitation of the properly construed claim." *Seal-Flex, Inc. v. Athletic Track and Court Const.*, 172 F.3d 836, 842 (Fed.Cir.1999). Like anticipation, infringement is a factual inquiry. *General Elec. Co. v. Nintendo Co.*, supra at 1353; *Streamfeeder, LLC v. Sure-Feed Systems, Inc.*, 175 F.3d 974, 981 (Fed.Cir.1999). Unlike anticipation, the standard for proving infringement is by a preponderance of the evidence. See, *San Huan New Materials High Tech, Inc. v. International Trade Com'n*, 161 F.3d 1347, 1357 (Fed.Cir.1998), pet. for cert. dismissed, 528 U.S. 959, 120 S.Ct. 394, 145 L.Ed.2d 306 (1999); *Enercon GmbH v. International Trade Com'n*, 151 F.3d 1376, 1384 (Fed.Cir.1998), cert. denied, 526 U.S. 1130, 119 S.Ct. 1803, 143 L.Ed.2d 1007 (1999).

[31] [32] In an infringement analysis, after construing the claims that are alleged to be infringed, the Court compares those claims to the allegedly infringing device. See, *Markman I*, supra at 976; see also, *Cordis v. SciMed Life Systems, Inc.*, 982 F.Supp. 1358, 1363 (D.Minn.1997). A patent owner may prevail on a claim of infringement on one of two theories: literal infringement, or the doctrine of equivalents. Generally, to show literal infringement, a patentee must prove that "every limitation recited in the claim is found in the accused device, i.e., [that] the properly construed claim reads on the accused device exactly." *Cole v. Kimberly-Clark Corp.*, 102 F.3d 524, 532 (Fed.Cir.1996), cert. denied, 522 U.S. 812, 118 S.Ct. 56, 139 L.Ed.2d 20 (1997); see also, *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1539 (Fed.Cir.1991) ("the failure to meet a single limitation is sufficient to negate infringement of the claim."). Under the doctrine of equivalents, which the Courts apply to prevent "fraud on the patent," *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 608, 70 S.Ct. 854, 94 L.Ed. 1097 (1950), by finding infringement where a party steals the heart of an invention by making insubstantial changes that avoid the literal scope of the claims, Courts frequently use the function-way-result test; namely, "whether the substitute element matches the function, way, and result of the claimed element, or whether the substitute element plays a role not substantially different from the claimed element." *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 40, 117 S.Ct. 1040, 137 L.Ed.2d 146 (1997).

[33] ii. *Legal Analysis*. It is significant that the accused device in this case was granted a separate patent, and that the Patent Examiner, before granting the Burman Patent, had carefully reviewed the Viken Patent. The fact that a second patent was issued over the prior art may be relevant to whether the differences between the accused device and the patent-in-suit are substantial. See, *Roton Barrier, Inc. v. Stanley Works*, 79 F.3d 1112, 1128 (Fed.Cir.1996) (Nies, J., additional views); *National Presto Industries, Inc. v. West Bend Co.*, 76 F.3d 1185, 1191 (Fed.Cir.1996). However, "[t]he grant of a separate patent on the accused device does not automatically avoid infringement, either literally or by equivalency." *National Presto Industries, Inc. v. West Bend Co.*, supra at 1192. It is, therefore, only a factor to be considered, and is not dispositive of the issue.

What is more significant to our infringement analysis is that Claim 13, like the other claims of the Viken Patent, is composed in a "means plus function" format. The Court construes Claim 13, in light of the corresponding structure illustrated in Fig. 3, and the related text in the specification, to claim all of the elements of Claim 1, and to further claim that the "means for equalizing the flow is comprised of means" consisting of a flexible, rubber-like diaphragm, which exhibits "resilient characteristics for exerting a force, related to the pressure existing in the fluid circulation circuit," upon the automatic transmission fluid in the fluid source. See, *Viken Patent*, col. 8, 55-61.

Where the patent claim that is allegedly being infringed is a "means plus function" claim, governed by Section 112, paragraph 6, the infringement analysis takes on a different hue, as the analytical line between literal infringement and the doctrine of equivalents tends to blur. To find literal infringement of a Section 112, paragraph 6 limitation, the factfinder must first determine that the accused device performs an identical function to the one recited in the means plus function clause. *Mas-Hamilton Group v. LaGard, Inc.*, supra at 1211. If the factfinder concludes that the functions of the two structures are identical, then literal infringement will exist if "the accused device utilizes the same structure or materials as described in the specification, or their equivalents." FN19 *Id.* at 1212; see also, *Al-Site Corp. v. VSI Int'l, Inc.*, supra at 1320. Thus, "[f]unctional identity and either structural identity or equivalence are both necessary." *Odetics, Inc. v. Storage Technology Corp.*, 185 F.3d 1259, 1267 (Fed.Cir.1999), citing *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 934 (Fed.Cir.1987) (*en banc*), cert. denied, 485 U.S. 961, 108 S.Ct. 1226, 99 L.Ed.2d 426 (1988).

FN19. Under this rubric, it is possible to literally infringe a "means plus function" claim with a structure that is not actually described in the specification, but that serves as its equivalent. *General Elec. Co. v. Nintendo Co.*, 179 F.3d 1350, 1354 n. 1 (Fed.Cir.1999).

Where there is functional identity, but not structural identity, between the accused device and the patent claim, the statutory "means plus function" test measures the possible equivalence between the structures in an analytical framework that is "closely related" to the doctrine of equivalents. See, *Chiuminatta Concrete Concepts, Inc. v. Cardinal Industries, Inc.*, supra at 1310; see also, *Warner-Jenkinson Co. v. Hilton Davis Chem Co.*, supra at 28, 41, 117 S.Ct. 1040 (statutory structural equivalence is "an application of the doctrine of equivalents *** in a restrictive role."). Like the doctrine of equivalents, the statutory test for structural equivalence compares the "insubstantiality of differences" between structures.FN20 See, *Al-Site Corp. v. VSI Int'l, Inc.*, supra at 1321. In content, the equivalence test under Section 112, paragraph 6, reduces the function-way-result test to "way" and "result," FN21 requiring "a determination of whether the 'way' the assertedly substitute structure performs the claimed function, and the 'result' of that performance, is substantially different from the 'way' the claimed function is performed by the 'corresponding structure, acts, or materials described in the specification,' or its 'result.'" *Odetics, Inc. v. Storage Technology Corp.*, supra at 1267. Put more succinctly, statutory equivalence will exist when "the differences between the structure in the accused device and any disclosed in the specification are insubstantial." *Chiuminatta Concrete Concepts, Inc. v. Cardinal Industries, Inc.*, supra at 1309.

FN20. The two modes of analysis have different purposes of course. An equivalent under Section 112, paragraph 6, informs the claim meaning for a literal infringement analysis, while the doctrine of equivalents actually "extends the enforcement of claim terms beyond their literal reach in the event 'there is "equivalence" between the elements of the accused product or process and the claimed elements of the patented invention.'" *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1320 (Fed.Cir.1999), quoting *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21, 117 S.Ct. 1040, 137 L.Ed.2d 146 (1997).

FN21. In this way, the tripartite function-way-result test, that has developed for the doctrine of equivalents, does not entirely transfer to the statutory equivalence context, as the doctrine of equivalents requirement, that the function performed by the accused device be "substantially the same," is obviated by the statutory prerequisite of functional identity. See, *Al-Site Corp. v. VSI Int'l, Inc.*, supra at 1320-21. The Plaintiffs' reasoning, which applies the function-way-result test to statutory equivalence, under Section 112, paragraph 6, see, *Pls.' Mem. Opp. Defs's Mot. Summ. J. and Reply Mem.* at 35, is erroneous.

[34] Perhaps as critical to the Court's analytical approach is the undisputed fact that the closed, tall, plastic cylinder, which is separated into two chambers by a free-floating piston, as an assertedly equivalent structure, was available at the time the Viken Patent was issued.FN22 Recent decisions from the Federal Circuit hold that, if the proposed structural equivalent arose before the date of patent issuance, then the analysis of the ostensibly equivalent structure collapses into the Section 112, paragraph 6 analysis, and the patent holder is not entitled to rely upon the doctrine of equivalents. See, *Al-Site Corp. v. VSI Int'l, Inc.*, supra at 1321 n. 2; *Chiuminatta Concrete Concepts, Inc. v. Cardinal Industries, Inc.*, supra at 1311. In *Chiuminatta*, the Court explained its rationale, for holding that a finding of non-equivalence for purposes of Section 112, paragraph 6, would preclude a contrary finding under the doctrine of equivalents, as follows:

FN22. Citing technical publications from 1980-81 and 1984, the Plaintiffs' Memorandum asserts, in another context, that "[d]iaphragms and free-floating pistons are commonly used to separate fluids in many hydraulic applications." *Pls.' Mem. Opp. Def.'s Mot. Summ. J. and Reply Mem.* at 36, citing *Fluid Power Handbook & Directory*, pp. 37-38 (1980-81), and Charles S. Hedges, 1 *Industrial Fluid Power* 230-31 (3rd Ed.1984).

This is because, *** given the prior knowledge of the technology asserted to be equivalent, it could readily have been disclosed in the patent. There is no policy-based reason why a patentee should get two bites at the apple. If he or she could have included in the patent what is now alleged to be equivalent, and did not, leading to a conclusion that an accused device lacks an equivalent to the disclosed structure, why should the issue of equivalence have to be litigated a second time?

Chiuminatta Concrete Concepts, Inc. v. Cardinal Industries, Inc., supra at 1311.

The marginally broader coverage, that is extended by the doctrine of equivalents, when equivalence may exist if the function performed by the accused device is substantially the same, is supported by patent policy "because a patent draftsman has no way to anticipate and account for later developed substitutes of the same element." *Al-Site Corp. v. VSI, Int'l, Inc.*, supra at 1321 n. 2. No comparable policy consideration supports application of the doctrine of equivalents in favor of a patentee who had an opportunity to account for the available substitute technology.FN23

FN23. This opportunity was clearly available to Viken, who testified that, before he applied for a patent, he experimented with a free-floating piston, but found that "it was not as efficient or as desirable as the particular embodiment that we're manufacturing now or that is described specifically in the Figure 3 of the 080 patent." *Deposition of James P. Viken* at 122, *Bridgewood App. P 8*.

[35] Therefore, proceeding under the literal infringement test of Section 112, paragraph 6, we first address whether there is a genuine issue of fact as to whether the flexible, rubber-like diaphragm and free-floating piston have identical functions, as they are used in the parties' inventions. By now, it should go without saying that the flexible, rubber-like diaphragm, which is disclosed in Claim 1, and in dependent Claim 13, performs the function of "equalizing the fluid flow" into the fluid receiver and out of the source of fresh fluid. *Viken Patent*, col. 8, 20-23. There is no dispute that the function of the free-floating piston in the Bridgewood device is to equalize corresponding fluid flows. Rather, Bridgewood points out that Claim 13 of the Viken Patent recites the additional function of "exhibiting resilient characteristics" for exerting a force on the transmission fluid contained in the fluid source. *Id.*, col. 8, 57-61. According to Bridgewood, its free-floating piston does not perform the identical function, because it does not exhibit "resilient characteristics."

As related by Johnson, who serves as Bridgewood's patent expert, although the free-floating piston is a "means for exerting a force," it "is not a means 'exhibiting resilient characteristics' for exerting a force." Johnson continues by explaining:

A free-floating piston does not have the same inherent qualities as a "flexible, rubber-like diaphragm." The piston is not "distended" by the used fluid that enters the closed, cylindrical chamber from the transmission, and the free piston does not have any "flexible" or "resilient" or "rubber-like" characteristics. A free-piston cannot be deformed or stretched, and it has no capacity to return to an initial undeformed or unstretched position by its own elasticity or resiliency.

Johnson Decl. para. 28 [emphasis in original].

Johnson's opinion, we believe, relies on two fallacious premises. First, Johnson incorrectly assumes that, to be "resilient," the means separating the two fluid chambers must be elastic. The ordinary meaning of "resilient," however, is not so narrow, for its meaning encompasses the capability of "returning to an original shape **or position**, as after having been compressed." See, *American Heritage Dictionary*, p. 1535 (3rd ed.1992) [emphasis added]. In other words, the function of exhibiting resilient characteristics encompasses the ability to return to an original shape after being deformed under pressure, as well as being able to return to its original position after being compressed. The Plaintiffs' experts believe that a free-floating piston thus exhibits resilient characteristics because it returns, under fluid pressure, to its original position. *Deposition of Richard J. Goldstein* at 83-85, *Larus Second Aff.*, Ex. 6; *Deposition of Nickolas E. Westman* at 110, *Larus Second Aff.*, Ex. 20. Although they do not contend that a free-floating piston is inherently resilient, the Plaintiffs' experts believe that, nonetheless, it exhibits resilient characteristics by behaving resiliently, i.e., by returning to its original position after compression. *Goldstein Depo.* at 85; *Westman Depo.* at 110.

Johnson's second misapprehension is that the flexible, rubber qualities of the diaphragm, which is described in the Viken Patent specification, imbues the meaning of "exhibiting resilient characteristics" with qualities of stretch and elasticity, as opposed to the ability to return to an original position. Essentially, when Johnson compares functions, he reads the attributes of the structure corresponding to Claim 13 into its recited function. This, we believe, is impermissible, because it erases the distinction between the threshold "identity of function" inquiry, and the examination, for purposes of Section 112, paragraph 6 equivalence, of the substantiality of the differences between the structure in the accused device, and the structure disclosed in the patent. For purposes of determining whether the functions are identical, the law is clear that the accused device must only perform a **function** that is identical to that recited in the means clause of the disputed claim. See, *Al-Site Corp. v. VSI Intern., Inc.*, supra at 1320-21; *Serrano v. Telular Corp.*, supra at 1582. Whether the structures are equivalent is a separate question, and we are aware of no authority which would permit Johnson to "jump the gun" by infusing the identity of function test with a comparison of the corresponding structures. At a minimum, the Plaintiffs have established the existence of a genuine factual dispute as to whether the two structures perform identical functions.

Structural equivalence, or whether the way the free-floating piston performs flow equalization, and the result of that performance, is substantially different from the way that function is performed by the flexible, rubber-like diaphragm or its result, see, *Odetics, Inc. v. Storage Technology Corp.*, supra at 1266-67, is also genuinely disputed. The Plaintiffs' experts reason that both designs "use a moving, solid separating 'wall' between the two fluids," which are both designed to maintain "a relatively small pressure difference across the moving 'wall' with no leakage." *Goldstein Expert Report* at 2; see also, *Expert Report of Nickolas E. Westman* para. D3, *Larus Second Aff.*, Ex. 30.

There are differences in the manner in which a flexible, rubber-like diaphragm, and a free-floating piston, exhibit resilient characteristics. The diaphragm exhibits such characteristics through its own elasticity, while the piston relies on external pressure to accomplish the same. Whether these differences are substantial is a question of fact which, when legitimately disputed, is appropriately left for the Jury to resolve. See, *Odetics, Inc. v. Storage Technology Corp.*, supra at 1268-69, and cases cited therein. Accordingly, with respect to infringement, the Defendant's Motion for Summary Judgment is denied.

e. *Inequitable Conduct*. There is a final patent-related matter, which arises from Viken's prosecution of his patent before the PTO. Bridgewood contends that Viken engaged in inequitable conduct before the PTO, thereby rendering the Viken Patent unenforceable, by making three material misrepresentations in his patent specification with an intent to mislead the Patent Examiner. Both sides move for Summary Judgment on this issue.

[36] i. *Standard of Review*. Because patent prosecutions are secret, nonadversarial, *ex parte* proceedings, inventors, registered patent agents, and registered patent attorneys, are held to a high ethical standard in their dealings with the PTO, particularly with respect to the disclosure of their knowledge of the state of the art. Patent applicants, and their agents, "are required to prosecute patent applications in the PTO with candor, good faith, and honesty." *Elk Corp. v. GAF Bldg. Materials Corp.*, 168 F.3d 28, 30 (Fed.Cir.1999), cert. denied, 528 U.S. 873, 120 S.Ct. 178, 145 L.Ed.2d 150 (1999); see also, 37 C.F.R. s. 1.56. A breach of this duty constitutes inequitable conduct, *Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1178 (Fed.Cir.1995), which, when proven as an affirmative defense to infringement, renders an entire patent unenforceable. *Baxter Int'l, Inc. v. McGaw, Inc.*, 149 F.3d 1321, 1332 (Fed.Cir.1998).

[37] Proof of inequitable conduct entails a two-step analysis. *Akron Polymer Container Corp. v. Exxel Container, Inc.*, 148 F.3d 1380, 1383 (Fed.Cir.1998). First, the factfinder must determine whether there is clear and convincing evidence of materiality with respect to the omitted or falsely represented information, as well as an intent to deceive by the applicant. See, *Key Pharmaceuticals v. Hercon Laboratories Corp.*, supra at 719; *Goodyear Tire & Rubber Co. v. Hercules Tire & Rubber Co.*, 162 F.3d 1113, 1122 (Fed.Cir.1998). "Absent proof of a threshold level of both materiality and intent, there can be no determination of inequitable conduct." *Key Pharmaceuticals v. Hercon Laboratories Corp.*, supra at 719. If materiality and intent "are established, the court will weigh the findings and their premises and decide, in the court's exercise of discretion, whether to hold the patent unenforceable." *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 546-47 (Fed.Cir.1998). In this second step of the inequitable conduct analysis, the Court exercises its equitable capacity to weigh materiality and intent to determine whether the applicant's conduct was so culpable that the patent should be held unenforceable. See, *Baxter Int'l, Inc. v. McGaw Corp.*, supra at 1327 ("The more material the omission, the less evidence of intent will be required in order to find that inequitable conduct has occurred.").

[38] Information must be accurately disclosed when it is material. Undisclosed or false information is "material" when there is a substantial likelihood that a reasonable examiner would have considered the information important in deciding whether to allow the application to issue as a patent. *Elk Corp. of Dallas v. GAF Bldg. Materials Corp.*, supra at 31. This standard does not require that, "but for" the misconduct, the patent would not have issued. *Merck & Co. v. Danbury Pharmacal, Inc.*, 873 F.2d 1418, 1421 (Fed.Cir.1989). Rather, the standard expects that "[c]lose cases should be resolved by disclosure, not unilaterally by the applicant." *LaBounty Mfg. v. U.S. International Trade Com'n*, 958 F.2d 1066, 1076 (Fed.Cir.1992).

[39] Although the proof of an intent to deceive the PTO must be clear and convincing, the Federal Circuit "has recognized that intent need not, and rarely can, be proven by direct evidence." *Elk Corp. v. GAF Bldg. Materials Corp.*, supra at 32, citing *Merck & Co. v. Danbury Pharmacal, Inc.*, supra at 1422. Intent may be inferred from the applicant's conduct and surrounding circumstances, which must, however, take into account evidence of good faith. See, *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 882 F.2d 1556, 1562 (Fed.Cir.1989); see also, *Critikon, Inc. v. Becton Dickinson Vascular Access, Inc.*, 120 F.3d 1253, 1259 (Fed.Cir.1997) (inferring intent in light of pattern of material nondisclosure, and absence of good faith

explanation), cert. denied, 523 U.S. 1071, 118 S.Ct. 1510, 140 L.Ed.2d 665 (1998). Even though "the premises of inequitable conduct require findings based on all the evidence," which may elude a summary disposition, a Motion for Summary Judgment on the affirmative defense of inequitable conduct may still be granted "when, drawing all reasonable factual inferences in favor of the non-movant, the evidence is such that the non-movant can not prevail." *ATD Corp. v. Lydall, Inc.*, supra at 547, citing *KangaROOS U.S.A., Inc. v. Caldor, Inc.*, 778 F.2d 1571, 1577 (Fed.Cir.1985).

[40] ii. *Legal Analysis*. Bridgewood alleges that Viken made three material misrepresentations, or omissions, in proceeding before the PTO: (1) by representing that he had utilized the concepts of the Becnel Patent when, in fact, he was working with a differently-configured variant of one of his own devices; (2) by falsely representing that the Becnel Patent was prone to transmission starvation; and (3) by omitting Fig. 5 of the Becnel Patent from his characterization of the state of the prior art, and from his discussion of the Becnel Patent.

The first two alleged misrepresentations to the Patent Examiner share a common denominator-the alleged use of the method disclosed in the Becnel Patent. As noted, Viken told the Examiner that he had utilized the concepts presented in the Becnel Patent "in a similar manner," and that he had encountered performance problems. *Application Serial No. 07/781,322* at 5. The truth or falsity of his second representation-that he had encountered problems such as transmission starvation in use of the Becnel patented design-depends upon the veracity of his claim that he, in fact, had used the Becnel design. As disclosed at his deposition, Viken was not aware of the Becnel Patent at the time that he allegedly experimented with the design, and he had actually experimented with a "derivative" of one of his own fluid changing devices, see, *Viken Depo.* at 299, which used a graduated five-gallon jug, and his own reckoning, instead of flow gauges and meters, to measure the flow of transmission fluid. *Id.* at 312-15. Viken's representation, that he at least experimented with this conception, is supported by receipts for parts that were used to construct the experimental, derivative model. See, *Viken Aff., Exs. A, B*. It was by sheer coincidence, Viken explains, that his experiments bore the critical elements of the method disclosed in the Becnel Patent, so that, when he later learned of the contents of the Becnel Patent, he could honestly tell the Examiner that he had experimented, and learned of problems, with Becnel's design. *Affidavit of James P. Viken* para. 3-16.

There is no dispute that Viken omitted Fig. 5 of the Becnel Patent from his "prior art" illustrations in the Viken Patent. Although it is difficult to conclude that Viken's two affirmative representations, concerning the Becnel Patent, were literally false, taken at face value, and given the omission of any indication that the Becnel method was not faithfully reproduced in every pertinent respect, the statements were misleading. The Patent Examiner would have thought-wrongly, as it turns out-that Viken had acquired a device identical to what is disclosed in the Becnel Patent, and had actually experimented with it. A finding of inequitable conduct can be premised upon misleading statements, characterizations, and omissions, as well as on classic falsehoods. See, *B.F. Goodrich Co. v. Aircraft Braking Systems Corp.*, 72 F.3d 1577, 1585 (Fed.Cir.1996) (truthfulness does not negate a finding of inequitable conduct "since truthful statements can be crafted in a misleading manner through intentional omission of particular relevant facts.").

The Record does not permit a summary disposition concerning the substantiality of the likelihood that a reasonable examiner would have considered the fact, that Viken experimented with a device that did not use flow gauges and meters, or the omission of Fig. 5 of the Becnel Patent-which depicts such a device-was important in deciding whether to allow the application to issue as a patent. See, *Elk Corp. of Dallas v. GAF Bldg. Materials Corp.*, supra at 31. It is critical that Viken informed the Examiner that the prior art allowed used fluid to drain "unregulated" from the transmission, while Fig. 5 of the Becnel Patent shows that a

gauge is used to measure flow control. If the Examiner did not have a copy of the Becnel Patent to compare with Viken's application, he may have erroneously concluded that the Becnel Patent design did not provide a means for keeping track of the amount of fluid discharged into the receptacle.

[41] It must be remembered that this is not a case in which an applicant completely withheld the known existence of relevant prior art. Instead, although neither he nor his attorney supplied the Examiner with a copy of the Becnel Patent, Viken informed the Examiner that it was one of the most directly pertinent to his invention. However, given Viken's criticism of the "free discharge" feature of the Becnel Patent, the Patent Examiner may not have felt it necessary to independently obtain the Becnel Patent.FN24 If that were the case, Viken's misleading omissions would not be material, because we may presume that the Examiner made the required thorough study of the Becnel Patent, and would have been able to identify any disagreement he may have had with the way Viken characterized it. See, 37 C.F.R. s. 1.104; see also, Rite-Hite Corp. v. Kelley Co., 819 F.2d 1120, 1123 (Fed.Cir.1987) (describing presumption that PTO follows its own rules).

FN24. In our considered view, the embodiment, which is shown in Fig. 5 of the Becnel Patent, does not anticipate the Viken Patent. However, materiality under the inequitable conduct doctrine does not hinge upon the patentability of the applicant's design over the withheld prior art reference. See, Merck & Co. v. Danbury Pharmacal, Inc., 873 F.2d 1418, 1421 (Fed.Cir.1989).

The objectively observable indicia, as found in the Viken Patent file history, support opposing inferences on the Examiner's actual comparison of the patents. There are marginalia adjacent to the references to the Becnel Patent in Viken's application, which obviously suggests that the Examiner reviewed the Becnel Patent. On the other hand, those notations are not accompanied by the Examiner's initials, which would reflect that the notes were made as a part of the review. In his Expert Report, Johnson contends, based upon the Manual for Patent Examining Procedure, that the Examiner should have "marked and initialed" the specification if, as here, the applicant merely cited a prior art reference, but did not produce a copy of it. *Johnson Decl.* para. 10-11. Bridgewood argues that the absence of initials, when combined with the fact that the Examiner did not list the Becnel Patent under the "Field of Search" heading, constitute clear and convincing evidence that the Examiner never obtained the Becnel Patent, because he was discouraged from doing so by Viken's characterizations. In our view, the nonmoving parties are each entitled to a reasonable inference that the Examiner did, or did not, independently obtain the Becnel Patent, so as to carefully compare it against Viken's application. As a consequence, materiality is genuinely in dispute, and may not be resolved summarily.

It follows, although not necessarily so, that Viken's alleged intent to deceive the PTO, by making three disputedly material omissions of relevant information, is also genuinely contested. The Federal Circuit holds that intent to deceive may not be inferred solely from the fact that material information was not disclosed. See, *Hebert v. Lisle Corp.*, 99 F.3d 1109, 1116 (Fed.Cir.1996). Yet Viken's allegedly material omissions are juxtaposed against his simultaneous recognition of the Becnel Patent's importance to his invention. The inferences from that circumstance cut both ways. On the one hand, we can reasonably infer that Viken was conscious of the importance of the information that he had failed to disclose while, on the other hand, if Viken truly wanted to conceal Becnel's prior art from the Examiner, he would not have highlighted that prior art in the specification. In addition, there is paralleling substance to his two omissions. Viken neglected to mention that, in experimenting with certain concepts from the Becnel Patent, he used a device that lacked all of the elements of one of its embodiments, and then, concurrently, left a drawing of that

embodiment-Fig. 5 of the Becnel Patent-out of his description of the prior art. The telling common thread to these seemingly haphazard omissions is that they both conceal the embodiment of the published prior art that held the greatest threat to the patentability of Viken's invention.

Viken's explanation of subjective good faith is plausible. At his deposition, he agreed that the Becnel Patent provided a means for measuring the volume of fluid discharge, but he stated that a five-gallon graduated jug, which was aided by his own mental calculations, sufficed as a reproduction of the Becnel Patent design. Under this rationale, Viken's characterization of the design would be true from Viken's perspective, making his failure to disclose Fig. 5 of the Becnel Patent appear far less suspicious. Like materiality, the issue of intent to deceive properly hinges upon inference and credibility, which we are ill-positioned to factually resolve. Giving both parties the benefit of their most favorable version of the facts, and the inferences which arise from those facts, we find Bridgewood's claim of inequitable conduct is properly for a Jury, and not resolvable by Summary Judgment.

To recap, we hold that there are genuine issues for Trial as to the alleged infringement of Claim 13 of the Viken Patent, as to the invalidity of Claims 1, 2, 3, 4, 12, and 13, of the Viken Patent over the Becnel Hydro-Pure, and as to the unenforceability of the Viken Patent because of asserted inequitable conduct before the PTO. Summary Judgment is granted in favor of the Plaintiffs on Bridgewood's claim that the Viken Patent is invalid, as being anticipated by the Becnel Patent and JP 2-72299, and on the claim that the Viken Patent is void because its advancement over prior art would have been obvious to one of ordinary skill in the art. Lastly, the Plaintiffs are entitled to a determination, as a matter of law, that Bridgewood infringed Claims 1, 2, 3, 4, and 12, of the Viken Patent, but only if they should prevail, at Trial, over Bridgewood's remaining invalidity defense.

2. Trademark Infringement. In comparison to the issues arising under the Patent Act, the Plaintiffs' Federal and State trademark claims evoke a relatively straightforward analysis of a more finite set of issues under Eighth Circuit, FN25 and Minnesota law. In support of its Motion for Summary Judgment, Bridgewood argues that the Plaintiffs have not acquired trademark rights in the designations "TOTAL FLUID EXCHANGE" and "TOTAL FLUID XCHANGE," that Bridgewood has not infringed whatever trademark rights the Plaintiffs may have, and that the Plaintiffs have not shown that they have sustained any damages.

FN25. Notwithstanding the appellate jurisdiction of the Federal Circuit, on issues attendant to patent law, the law of the pertinent regional Circuit governs claims arising under the Lanham Act. See, *Al-Site Corp. v. VSI Intern., Inc.*, supra at 1326.

[42] [43] a. *Standard of Review.* In the context of trademark infringement, the standard employed under the Lanham Act, FN26 and the Minnesota Deceptive Trade Practices Act, FN27 are substantially the same. *Hillerich & Bradsby Co. v. Christian Bros., Inc.*, 943 F.Supp. 1136, 1140 (D.Minn.1996), citing *DeRosier v. 5931 Business Trust*, 870 F.Supp. 941, 947 n. 8 (D.Minn.1994); cf., *Hubbard Feeds, Inc. v. Animal Feed Supplement, Inc.*, 182 F.3d 598 (8th Cir.1999) (applying Federal standard to trademark claims arising under Minnesota law). To succeed on their Trademark claim, the Plaintiffs must prove that the marks "TOTAL FLUID EXCHANGE" and "TOTAL FLUID XCHANGE" are entitled to protection, and that Bridgewood's use of its allegedly infringing marks is likely to confuse consumers. FN28 See, *Hubbard Feeds, Inc. v. Animal Feed Supplement, Inc.*, supra at 602; *Luigino's, Inc. v. Stouffer Corp.*, 170 F.3d 827 (8th Cir.1999). Whether a company's use of a trademark is sufficient to establish ownership rights, and whether the accused infringer's activity created the likelihood of confusion, are both questions of fact. See, *First National Bank*

in *Sioux Falls v. First National Bank*, South Dakota, 153 F.3d 885, 888 (8th Cir.1998); *Zazu Designs v. L'Oreal, S.A.*, 979 F.2d 499, 505 (7th Cir.1992).

FN26. According to s. 43(a) of the Lanham Act:

Any person who, on or in connection with any goods *** uses in commerce any word, term, [or] name *** which-

(A) is likely to cause confusion, or to cause mistake, or to deceive as to affiliation, connection, or association of such person with another person, or as to the origin, sponsorship or approval of his or her goods *** by another person *** shall be liable in a civil action by any person who believes that he or she is or is likely to be damaged by such act.

Title 15 U.S.C. s. 1125(a)(1).

FN27. As pertinent, the Minnesota Deceptive Trade Practices Act, makes it a deceptive trade practice for one, in the course of business, to:

(1) [pass] off goods or services as those of another;

(2) [cause] likelihood of confusion or of misunderstanding as to the source, sponsor-ship, approval, or certification of goods or services;

(3) [cause] likelihood of confusion or of misunderstanding as to affiliation, connection, or association with, or certification by, another ***.

Minnesota Statutes Section 325D.44, Subdivision 1.

FN28. The likelihood of customer confusion is "the hallmark of any trademark infringement claim."

Polymer Technology Corp. v. Mimran, 37 F.3d 74, 80 (2nd Cir.1994). The long-established precedent of this Circuit endorses a six-factor test for assessing the likelihood of confusion, in which no factor alone is dispositive. A Court should consider: (1) the strength of the owner's mark; (2) the similarity of the owner's mark to the alleged infringer's mark; (3) the degree to which the products compete with each other; (4) the alleged infringer's intent to "pass off" its goods as those of the trademark owner; (5) incidents of actual confusion; and (6) whether the degree of care exercised by the consumer can eliminate a likelihood of confusion that otherwise would exist. *Hubbard Feeds, Inc. v. Animal Feed Supplement, Inc.*, 182 F.3d 598, 602 (8th Cir.1999); see also, *Co-Rect Prods., Inc. v. Marvy! Advertising Photography, Inc.*, 780 F.2d 1324, 1330 (8th Cir.1985); *SquirtCo v. Seven-Up Co.*, 628 F.2d 1086, 1091 (8th Cir.1980).

[44] b. *Legal Analysis*. The Plaintiffs' ownership of common law trademark rights to "TOTAL FLUID EXCHANGE" and "TOTAL FLUID XCHANGE," and the threat of confusion, are both hotly contested. The first issue, and the *sine qua non* of any trademark infringement claim, is whether the Plaintiffs can

substantiate their claim of ownership rights in the marks "TOTAL FLUID EXCHANGE" and "TOTAL FLUID XCHANGE." To establish priority of ownership, the Plaintiffs must be able to show that they adopted, and commercially "used" those marks, before Bridgewood. Common law trademark rights arise "from the adoption and actual use of a word, phrase, logo, or other device to identify goods or services with a particular party." *First Bank v. First Bank System, Inc.*, 84 F.3d 1040, 1044 (8th Cir.1996) [citation omitted]. Best articulated by the motto, "no trade-no trademark," see, *La Societe Anonyme des Parfums le Galion v. Jean Patou, Inc.*, 495 F.2d 1265, 1274 (2nd Cir.1974) (Friendly, J.), long-settled law holds that trademark rights may only be appropriated through actual use, in commerce, in connection with the goods. *United States v. Steffens*, 100 U.S. 82, 10 Otto 82, 25 L.Ed. 550 (1879); *Flavor Corp. of America v. Kemin Industries, Inc.*, 493 F.2d 275, 284 (8th Cir.1974); *Graham Webb Int'l v. Helene Curtis Inc.*, 17 F.Supp.2d 919, 927 (D.Minn.1998); see also, Title 15 U.S.C. s. 1127.

Bridgewood contends that the Plaintiffs' use of the contested marks was *de minimis*, at best, and was, in no event, sufficient to constitute commercial "use" of the marks in connection with the goods. First, Bridgewood highlights the Plaintiffs' comparatively paltry advertising expenditures over the past few years, and the fact that only a few dozen TFX 5000 units have been sold, in support of its contention that the Plaintiffs' employment of their trademarks, in advertising brochures, videos, and in the TFX 5000 owner's manual, was not sufficiently extensive to merit trademark protection. We are not persuaded by Bridgewood's argument. So long as a reasonable Jury could find that the commercial use of the mark was *bona fide*, Summary Judgment will not lie against the Plaintiffs simply because their uses do not deeply penetrate the market, or engender widespread recognition. See, e.g., *Allard Enterprises, Inc. v. Advanced Programming Resources, Inc.*, 146 F.3d 350, 358 (6th Cir.1998) (person's use of trademark as part of a "word-of-mouth" marketing plan that targeted personal friends, but who used marks consistently in materials, was sufficiently public and commercial to establish trademark rights), and cases cited therein.

[45] The Plaintiffs have more difficulty, however, in showing that their claimed trademarks were "used" in a manner that would satisfactorily connect the marks with their goods. Bridgewood asserts that the mere advertising of a product, or the documentary use of a mark apart from the goods, does not establish trademark rights. Their argument finds considerable support in the case law of this Circuit, and elsewhere. These cases hold that "[t]he mere advertisement of words or symbols without application to the goods themselves is insufficient to constitute a trademark." *Electronic Communications, Inc. v. Electronic Components for Industry Co.*, 443 F.2d 487, 492 (8th Cir.1971), cert. denied, 404 U.S. 833, 92 S.Ct. 80, 30 L.Ed.2d 63 (1971); see also, *Flavor Corp. of America v. Kemin Industries, Inc.*, supra at 284 (trademark rights could not be established, in absence of sales, by the mailing of price lists and advertising circulars to potential customers); *Buti v. Perosa, S.R.L.*, 139 F.3d 98, 103 (2nd Cir.1998) (mere advertising of Fashion Cafe mark did not constitute "use" within the meaning of the Lanham Act), cert. denied, 525 U.S. 826, 119 S.Ct. 73, 142 L.Ed.2d 57 (1998); *Blue Bell, Inc. v. Farah Mfg. Co.*, 508 F.2d 1260, 1265 (5th Cir.1975) ("Neither conception of the mark, nor advertising alone establishes trademark rights at common law."); *Rolley, Inc. v. Younghusband*, 204 F.2d 209, 212 (9th Cir.1953) ("He who first affixes a trademark upon his goods is its owner").

[46] "Use" of a trademark, which would invest a seller with ownership of that mark, does not occur unless the mark is "placed in any manner on the goods or their containers or the displays associated therewith or on the tags or labels affixed thereto, or if the nature of the goods makes such placement impracticable, then on documents associated with the goods or their sale." Title 15 U.S.C. s. 1127; see also, *S Industries, Inc. v. Stone Age Equipment, Inc.*, 12 F.Supp.2d 796, 805 (N.D.Ill.1998); *Liebowitz v. Elsevier Science Ltd.*, 927 F.Supp. 688, 696 (S.D.N.Y.1996); but cf., *Brookfield Communications, Inc. v. West Coast Entertainment*

Corp., 174 F.3d 1036, 1052 (9th Cir.1999) (in *dictum*, noting that "widespread publicity" of a company's mark, even before the product is sold, may be sufficient to constitute "use"); *Marvel Comics Ltd. v. Defiant*, 837 F.Supp. 546, 549 (S.D.N.Y.1993) (rejecting argument that trademark must, in all cases, be physically attached to the goods).

[47] The substance of the Plaintiffs' proof of their use of the claimed trademarks consists of assorted copies of Transclean's advertisements, and brochures, together with Viken's statement in his Affidavit that, since 1994, "Transclean has continuously used these marks in its advertising materials, products, invoices and operating manuals." *Viken Aff.* para. 26. Viken's conclusory Affidavit on the ultimate issue of "use," standing alone, will not create a genuine issue of material fact that Transclean "used" its marks in the manner necessary to earn common law trademark rights. See, *Rose-Maston v. NME Hospitals, Inc.*, 133 F.3d 1104, 1109 (8th Cir.1998); see also, *Imperial Tobacco Ltd., Assignee of Imperial Group PLC v. Philip Morris, Inc.*, 899 F.2d 1575, 1581 (Fed.Cir.1990) (a party's affidavit, denying intent to abandon trademark, is insufficient to rebut charge of abandonment). Aside from this bald statement, nothing in the Record establishes that any TFX 5000 bore the "TOTAL FLUID EXCHANGE" or the "TOTAL FLUID XCHANGE" mark, when it was publicly sold, FN29 let alone when, where, or to whom, any of the advertising or promotional materials, which carried the marks, were distributed. One can infer that the owner's manual was distributed with the product, but nothing in the use of the descriptive phrase "TOTAL FLUID EXCHANGE SYSTEM FOR AUTOMATIC TRANSMISSIONS," as it is employed in the owner's manual, would suggest to a reasonable Jury that the phrase was being used as a source identifier for potential customers. Cf., *Exxon Corp. v. Humble Exploration Co., Inc.*, 695 F.2d 96, 99 (5th Cir.1983) (where trademark was distributed with product invoices, and customers could not have relied on it in purchases, trademark was not "used").

FN29. The Plaintiffs insist in their Memorandum of Law that, since 1994, their trademarks have been placed on Transclean's fluid changing machines. The evidence cited by the Plaintiffs simply does not substantiate that assertion. Of the deposition exhibits, which the Plaintiffs cite to support their claimed "use" of the trademarks in connection with the product, see, *Pls.' Mem. Opp. Defs.' Mot. Summ. J. and Reply Mem.* at 40, Dfx. 23 is an advertisement; Dfx. 25 was not included among the Plaintiffs' submissions; Dfx. 28 is a letter from Viken bearing the Plaintiffs' mark; Dfx. 72 is a Transclean brochure; Dfxs. 73, 84, and 86 are operator's manuals; and Dfx. 85 is an advertisement. See, *Larus Second Aff., Exs. 55, 56, 62, 63, 67, 68, 69*. None of these exhibits show, as the Plaintiffs claim, that Transclean's marks were affixed or attached to products, or to the containers associated with the products. The Plaintiffs point to no proof that the marks were affixed to their products, other than their conclusory averments.

The Plaintiffs erroneously assume that photocopies of promotional materials, which bear their claimed trademark, as backed by the vague assertion that they "used" their mark in advertising, products, invoices, and operating manuals, raises a genuine issue for Trial as to their ownership of common law trademark rights. Ultimately, the Plaintiffs cite to nothing in the Record, beyond general advertising, and a conclusory affidavit, which are insufficient in showing that their claimed marks were ever meaningfully affixed to the products whose origin they purport to identify.

Quite simply, since the Plaintiffs are unable to show exactly how their marks were **connected** to their product, we are "not 'obligated to wade through and search for some specific facts which might support' " the Plaintiffs' naked assertion of trademark "use" in their effort to forestall Bridgewood's Motion for Summary Judgment. See, *Jaurequi v. Carter Mfg. Co.*, 173 F.3d 1076, 1085 (8th Cir.1999), quoting *White v.*

McDonnell Douglas Corp., 904 F.2d 456, 458 (8th Cir.1990). Once Bridgewood demonstrated the absence of evidence of trademark use, which would be sufficient to confer common law rights to the purported owner, the Plaintiffs were "required to designate specific facts creating a triable controversy." *Barge v. Anheuser-Busch, Inc.*, 87 F.3d 256, 260 (8th Cir.1996) (rejecting argument that "district court has an affirmative obligation to plumb the record in order to find a genuine issue of material fact."). As neither evidence of advertising, nor a conclusory affidavit, is sufficient evidence of commercial use of the Plaintiffs' trademarks in connection with the sale of goods, Summary Judgment must be granted to Bridgewood on the Plaintiffs' Federal and State law trademark infringement claims.

[48] 3. *False Advertising. a. Standard of Review.* The Lanham Act provides a civil remedy for a plaintiff who is injured by a defendant's employment of false or deceptive advertising.FN30 In addition, the injured plaintiff may prosecute substantially similar claims, against the same defendant, under the Minnesota Deceptive Trade Practices Act.FN31 As was the case with alleged trademark infringement, in "evaluating any claims that are brought under both the State and Federal Statutes, the Court applies the same analysis." *LensCrafters, Inc. v. Vision World, Inc.*, 943 F.Supp. 1481, 1487-88 (D.Minn.1996); see also, *Hillerich & Bradsby Co. v. Christian Bros., Inc.*, supra at 1140. To prevail on a false advertising claim, under either the Federal or Minnesota Statute, the Plaintiff must allege that: (1) the defendant made false statements of fact, in an advertisement, about its own products, or about the plaintiffs' products; (2) the advertising actually deceived or tended to deceive a substantial segment of its audience; (3) the deception is material because it is likely to influence buying decisions; and (4) the plaintiff was injured or is likely to be injured as a result. FN32 Id. at 1488, citing *Alternative Pioneering v. Direct Innovative Products*, 822 F.Supp. 1437, 1441-42 (D.Minn.1993).

FN30. As here pertinent, Section 43(a) of the Lanham Act provides as follows:

(1) Any person who *** uses *** any word, term, name, symbol, or device, or any combination thereof, or *** [any] false or misleading representation of fact, which-

* * * * *

(B) in commercial advertising or promotion, misrepresents the nature, characteristics, qualities, or geographic origin of his or her or another's goods, services, or commercial activities, *** shall be liable in a civil action by any person who believes that he or she is likely to be damaged by such act.

Title 15 U.S.C. s. 1125(a)(1).

FN31. Minnesota Statutes Section 325D.44, Subdivision 1(5), states that it is a deceptive trade practice, in the course of a business, to "[represent] that goods or services have *** characteristics *** [or] benefits *** that they do not have ***."

FN32. An additional element-namely, that the advertised goods entered interstate commerce-is necessary to sustain a false advertising claim under Federal law. See, *LensCrafters, Inc. v. Vision World, Inc.*, 943 F.Supp. 1481, 1488 (D.Minn.1996). The existence of that element is not at issue here.

Beyond the Minnesota Deceptive Trade Practices Act, the Consumer Fraud Act provides a criminal penalty

for false advertising. A person injured by a violation of this Act may recover civil damages, attorneys fees, and costs, pursuant to Minnesota Statutes Section 8.31, Subdivision 3a. *Kronebusch v. MVBA Harvestore System*, 488 N.W.2d 490, 494-95 (Minn.App.1992), rev. denied (Minn., Oct. 20, 1992). The elements essential to the proof of a violation of the False Advertising Statute include intent, publication, and a false or misleading statement. *LensCrafters, Inc. v. Vision World, Inc.*, supra at 1491, citing *Op. Att'y Gen. 417-e*, (Oct. 3, 1951).

b. *Legal Analysis*. In seeking Summary Judgment, Bridgewood disputes the existence of each and every element of the Plaintiffs' false advertising claim, under the Lanham Act and under Minnesota law. Bridgewood asserts that its advertising claims, which proclaim that its machine will replace "100%," "all," "every drop," or "virtually 100%," of a vehicle's old transmission fluid, were not literally false or misleading, that its advertising claims did not actually or tend to deceive a substantial segment of the buying public, and that there is no evidence that the Plaintiffs were or are likely to be injured as a result. In addition, Bridgewood argues that the Plaintiffs should be "estopped" from arguing that Bridgewood's advertising claims were false, because Transclean's advertisements also claimed that the TFX 5000 could replace "all," or "virtually all," of a vehicle's used transmission fluid. We address this last argument first, and then proceed to examine the elements of the Plaintiffs' false advertising claim.

[49] i. *Bridgewood's "Estoppel" Argument*. Bridgewood's argument, that the Plaintiffs "should *** be estopped by [their] own conduct from asserting that [Bridgewood's] advertising statements are false," is an attempt to invoke the equitable doctrine of unclean hands, under the guise of estoppel. Since Bridgewood has not claimed to have relied upon the Plaintiffs' actions, we are aware of no general grounds of "estoppel," that would apply, absent a showing of Bridgewood's reasonable reliance on the Plaintiffs' actions, and Bridgewood cites no such authority for our review. Cf., *Total Petroleum, Inc. v. Davis*, 822 F.2d 734, 737 (8th Cir.1987) (equitable estoppel "prevents a party from denying a state of facts that he has previously asserted to be true if the party to whom the representation was made has acted in reliance on the representation and will be prejudiced by its repudiation").

The doctrine of unclean hands, which has its roots in the maxim "he who seeks equity must present himself in court with clean hands," *Manhattan Medicine Co. v. Wood*, 108 U.S. 218, 225, 2 S.Ct. 436, 27 L.Ed. 706 (1883), may arise when a party, who seeks equitable relief against a competitor's false advertising, has itself made false representations about its product to the public. See, e.g., *Phillip Morris, Inc. v. Allen Distributors, Inc.*, 48 F.Supp.2d 844, 856 (S.D.Ind.1999) (recognizing the availability of unclean hands defense under Lanham Act); *Haagen-Dazs, Inc. v. Frusen Gladje, Inc.*, 493 F.Supp. 73, 76 (S.D.N.Y.1980) (doctrine of unclean hands prevented plaintiff from obtaining preliminary injunction against defendant's false designation of its ice cream as Scandinavian, when plaintiff's labeling falsely suggested that its ice cream was from Sweden).

To successfully avail itself of the doctrine of unclean hands under Federal law, a defendant must show that the plaintiff committed wrongdoing that is directly related to the claim which it has asserted, and that the plaintiff's wrongdoing injured the defendant. See, *Calloway v. Partners National Health Plans*, 986 F.2d 446, 450 (11th Cir.1993), citing *Mitchell Bros. Film Group v. Cinema Adult Theater*, 604 F.2d 852, 863 (5th Cir.1979), cert. denied, 445 U.S. 917, 100 S.Ct. 1277, 63 L.Ed.2d 601 (1980). "Under Minnesota law, the doctrine of unclean hands will be invoked only to deny equitable relief to a party whose conduct has been unconscionable by reason of a bad motive or where the result induced by that party's conduct will be unconscionable either in the benefit to that party or in the injury to others." *Foy v. Klapmeier*, 992 F.2d 774, 779 (8th Cir.1993).

Whatever terminology is used to characterize it, Bridgewood's attempt to parlay Transclean's allegedly inequitable advertising conduct, into a bar to the Plaintiffs' false advertising claims, is unavailing. Unclean hands, and estoppel, are affirmative defenses. *Jacobs Mfg. Co. v. Sam Brown Co.*, 19 F.3d 1259, 1266 (8th Cir.1994) (estoppel), cert. denied, 513 U.S. 989, 115 S.Ct. 487, 130 L.Ed.2d 399 (1994); *Continental Bank, N.A. v. Modansky*, 129 B.R. 159, 164 (N.D.Ill.1991) (unclean hands); *Pierce v. Apple Valley, Inc.*, 597 F.Supp. 1480, 1485 (S.D.Ohio 1984) (unclean hands). Bridgewood's failure to raise, in a timely fashion, any affirmative defense to liability, which related to Transclean's advertisements, prevents them from arguing the defense here. See, *Harris v. Secretary, U.S. Dept. of Veterans Affairs*, 126 F.3d 339, 343 (D.C.Cir.1997).

As previously noted, only false or misleading statements of fact are actionable. There is an important distinction between false or misleading descriptions of the specific or absolute characteristics of a product-which are actionable-and generalized statements of product superiority, that are expressed in broad, vague, and commendatory language. These latter descriptions constitute mere "puffery," and are not actionable under the Lanham Act, or under related State Statutes. See, *LensCrafters, Inc. v. Vision World, Inc.*, supra at 1498 (promotion claiming that lens manufacturer has the "most advanced equipment available" not actionable); *Lipton v. Nature Co.*, 71 F.3d 464, 474 (2nd Cir.1995) (claim to have "thoroughly researched dozens and dozens of animals" was mere "puffing"); *Cook, Perkiss & Liehe v. Northern Calif. Collection Serv., Inc.*, 911 F.2d 242, 246 (9th Cir.1990) (collection agency's ad implying same service as lawyers at lower price was not actionable).

[51] On the other hand, "false descriptions of specific or absolute characteristics of a product and specific, measurable claims of product superiority based on product testing are not puffery and are actionable." *United Industries Corp. v. Clorox Co.*, supra at 1180, citing *Southland Sod Farms v. Stover Seed Co.*, 108 F.3d 1134, 1145 (9th Cir.1997); see also, *W.L. Gore & Associates, Inc. v. Totes, Inc.*, 788 F.Supp. 800, 809 (D.Del.1992) (manufacturer's claim, stating that its rain suits were seven times more breathable than competitors' suits, was not mere "puffing," where numerical comparison gave impression that claim was based upon independent testing). A Court may decide, as a matter of law, whether an advertisement was a statement of fact-which may be actionable-or was mere "puffery." *LensCrafters, Inc. v. Vision World, Inc.*, supra at 1489, citing *Perkiss & Liehe v. Northern Calif. Collection Serv., Inc.*, supra at 246.

As a consequence, for a Jury to determine the literal falsity of Bridgewood's advertisements necessarily depends upon a threshold judicial finding that the advertising claims were statements of fact, and were not puffery. For the purposes of our evaluation, we may divide Bridgewood's statements, which concern the efficiency of its product, into two categories. The first category, in which the archetypal claim is that Bridgewood's product "replaces 100% of your vehicle's dirty, old fluid," or that it "changes every drop of old transmission fluid," is comprised of advertising statements that describe, to a mathematical certainty, the amount of transmission fluid that is "replaced," or "changed," by their fluid exchanging device. The second category includes advertisements that use the qualifier "virtually"-for example, Bridgewood's device "replaces virtually 100% of the old automatic transmission fluid."

[52] Assertions of an ability to change "100%," or "every drop" of automatic transmission fluid, involve specific, measurable claims of product superiority which, if false, are actionable. In these advertisements, Bridgewood has described the efficiency of its product in absolute, measurable terms and, in some instances, with a numerical gloss. Also significant is the fact that the actual amount of fluid replacement is the central point which would distinguish, preferentially, the claimed product over competing fluid changing

systems. Bridgewood's "100%" and "every drop" claims went beyond what we previously confronted in the *LensCrafters* case, where we held that the characterizations of a product as "vastly" superior to other products, or as the "most advanced available," were mere puffery. See, *LensCrafters, Inc. v. Vision World, Inc.*, supra at 1489. Bridgewood's advertisement advances its general claim of product superiority with an attribution of a specific, relevant characteristic of its product, which is quantified in absolute, often numerical, terms. Bridgewood's representation, that its product replaces or exchanges "100%," "all," or "every drop" of a vehicle's used transmission fluid, are not puffery.

The addition of the qualifier "virtually," to the claim of 100% fluid replacement, does not transform the claim from a factual representation into the sort of " 'exaggerated advertising, blustering, and boasting upon which no reasonable buyer would rely,' " which are not actionable. See, *United Industries Corp. v. Clorox Co.*, supra at 1180, quoting *Southland Sod Farms v. Stover Seed Co.*, supra at 1145. Nor does that qualifier render Bridgewood's claim "vague or highly subjective." *Id.* Although the falsity or the misleading nature of a claim that Bridgewood's product "replaces virtually 100% of the old automatic transmission fluid," may be more difficult to prove than with respect to an unqualified assertion, such a claim remains within the sphere of a factual representation, which is potentially actionable under the Lanham Act, and related State laws. Cf., *McCormack v. Hanksraft Co.*, 278 Minn. 322, 336, 154 N.W.2d 488, 498 (Minn.1967) (describing vaporizer as "practically foolproof" was not mere puffing); *Salkeld v. V.R. Business Brokers*, 192 Ill.App.3d 663, 139 Ill.Dec. 595, 548 N.E.2d 1151, 1158 (1989) (holding that a representation, that "virtually no competition" existed for product, was a statement of fact, and not puffing), appeal denied, 132 Ill.2d 554, 144 Ill.Dec. 266, 555 N.E.2d 385 (1990).

To prove that Bridgewood's claims were literally false, the Plaintiffs retained MVTL Laboratories, Inc. ("MVTL"), which performed a so-called "nickel tracer analysis." An MVTL chemist, Rod Reetz ("Reetz"), added a predetermined amount of nickel-which is not normally present in automatic transmission fluid-to the transmissions of two vehicles. The vehicles were then put in normal use for one day, and then driven to a Jiffy Lube, where an automatic transmission fluid exchange was performed with Bridgewood's device. After the fluid change, and one day of vehicle use so as to allow the fluids to mix, Reetz measured the amount of nickel that remained in the transmission. Reetz detected nickel in both transmissions, notwithstanding the fact that no nickel was present in the fluid added. Reetz calculated, based upon the amount of nickel tracer found in the transmissions, that Bridgewood's device changed 87.2% of the transmission fluid in one vehicle, 81.2% in another, and 71.8% in a third. See, *MVTL Laboratories Expert Report, Larus Second Aff., Ex. 70*; *MVTL Laboratories Supplemental Expert Report, Larus Second Aff., Ex. 28*.

In response, Bridgewood urges us to exercise our gatekeeping authority, under Rule 702, Federal Rules of Evidence, as articulated in *Daubert v. Merrell Dow Pharmaceuticals Inc.*, 509 U.S. 579, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993), in order to reject the results of the nickel tracer analysis as being inadequately founded upon a scientifically valid methodology.FN33 In exercising its gatekeeper function, the Court "must look to both the relevancy and the reliability of the testimony." *Blue Dane Simmental Corp. v. American Simmental Ass'n*, 178 F.3d 1035, 1039 (8th Cir.1999), citing *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 119 S.Ct. 1167, 1174, 143 L.Ed.2d 238 (1999), and *Daubert v. Merrell Dow Pharmaceuticals Inc.*, supra at 589, 113 S.Ct. 2786. According to the Supreme Court, the factors for assessing scientific validity and, thus, evidentiary reliability, include the following: (1) whether the underlying theory or technique can be or has been tested; (2) whether the theory or technique has been subjected to peer review and publication; (3) whether the technique has a known or knowable rate of error; (4) whether the theory or technique is generally accepted in the relevant community. *Daubert v. Merrell Dow Pharmaceuticals Inc.*, supra at 593-

94, 113 S.Ct. 2786. Of course, the *Daubert* reliability factors should be applied to the extent that they are relevant, and the Court must customize its inquiry to fit the facts of each particular case. *Jaurequi v. Carter Mfg. Co.*, supra at 1083.

FN33. If, notwithstanding our Court of Appeals' decision in *Gier v. Educational Serv. Unit No. 16*, 66 F.3d 940, 943-44 (8th Cir.1995), which applied *Daubert* to psychological evaluations in cases of alleged child abuse, there was any question that *Daubert* applies to technical, as well as scientific, expert testimony, that doubt was resolved by the Supreme Court's decision in *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, ----, 119 S.Ct. 1167, 1171, 143 L.Ed.2d 238 (1999), where the Court concluded that *Daubert* applied to all expert testimony.

Aside from the explanation of MVTL's methodology in its Expert Reports, the only evidence of Record, which informs the *Daubert* factors, is Reetz's testimony that his "simple tracer analysis *** is the standard of the industry that's been around for as long as oil analysis has been around," and his concession that he had never performed that specific type of tracer analysis before. *Deposition of Rod Reetz* at 66-68, *Larus Second Aff., Ex. 14*. The *Daubert* factors have an unusual application in the milieu of testing advertising claims such as these because, often, the only need for these tests arises in litigation, and the tests are thus extemporized, to some extent, from the standardized methodology. Indeed, that appears to be the circumstance here. As Reetz states, gravimetric oil tracer analysis may be a traditional method of oil analysis but, apparently, it has never been applied to measure the totality of the exchange of automatic transmission fluid.

Yet, a ruling on the admissibility of the nickel tracer analysis under *Daubert*, when the Record does not permit a more reasoned analysis, after being fully advised of the premises, would be premature. See, *Brooks v. Outboard Marine Corporation*, 47 F.Supp.2d 380, 388 (W.D.N.Y.1999) (refusing to exclude expert testimony at Summary Judgment stage, where Record was incomplete). On the basis of the Record presented here, we find no reason to doubt that the Plaintiffs' expert will "employ[] in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Kumho Tire Co. v. Carmichael*, supra 526 U.S. 137, 119 S.Ct. at 1176. We have no basis to conclude, given what is before us now, that Reetz's analysis is " 'so fundamentally unsupported that it can offer no assistance to the jury ***.' " *Hose v. Chicago Northwestern Transp. Co.*, 70 F.3d 968, 974 (8th Cir.1995), quoting *Loudermill v. Dow Chem. Co.*, 863 F.2d 566, 570 (8th Cir.1988). For reasons that should be plain, this ruling is preliminary. Bridgewood is free to bring a *Daubert*-type Motion, *in limine*, and, in that event, we will revisit the issue, as the facts and law require.

[53] Being facially valid, the nickel tracer test evidences the literal falsity of Bridgewood's claim of being capable of replacing 100%, or virtually 100%, of a vehicle's automatic transmission fluid. In opposition, Bridgewood argues that the nickel tracer testing only shows that its device does not replace 100% of trace nickel from an automatic transmission, and proves nothing about the replacement of transmission fluid. Apparently, Bridgewood ignores Reetz's underlying opinion, that the nickel tracer follows the transmission fluid, with which it was initially mixed, and would not remain in the transmission if the fluid were entirely replaced. See, *Reetz Depo.* at 66. While this opinion may not prove impervious to cross-examination, or other evidentiary challenge, the MVTL testing is sufficiently probative to create a genuine factual dispute on the performance of Bridgewood's fluid exchanging machine.

Further, Bridgewood has advanced no evidence to demonstrate that its device removes 100% of a vehicle's

dirty transmission fluid, and replaces it with fresh fluid. Rather, Bridgewood urges an alternative meaning for the phrase "replaces 100% of your vehicle's dirty, old fluid." According to Bridgewood, "it is literally true that [its] device will replace fluid in 100% of the spaces within a transmission, instead of just the sump, and it also is literally true that in using [Bridgewood's] device, new fluid will be input to the transmission in an amount equal to at least 100% of the transmission's capacity," and that, if one runs enough new fluid through the system, the device could essentially replace 100% of the old fluid.

We cannot discount the possibility that these alternative interpretations of Bridgewood's advertisements may ultimately prevail, other than to say that the terms "replaces," and "changes," are somewhat at odds with Bridgewood's proffered interpretation. "Replaces" and "changes," at least as they are ordinarily used, connote an actual substitution of new fluid for old, and not just a saturation, by the new fluid, of the "spaces" that the old fluid had occupied. A phrase like "flushes 100% of your transmission" would more accurately convey that message. The terms "replaces," and "changes," when used in the present tense as opposed to the future conditional tense-such as "could replace"-imports a meaning that Bridgewood's machine replaces "100%," or "every drop" of used fluid, through ordinary use. At bottom, the evidence would permit a reasonable Jury to conclude that Bridgewood's claims are literally false.

[54] iii. *Consumer Deception*. Where, as here, the Plaintiffs have shown, under their view of the evidence, that Bridgewood's claims are literally false, proof of actual or likely customer deception is not necessary. See, *United Industries Corp. v. Clorox Co.*, supra at 1180 [citations omitted]; *Rhone-Poulenc Rorer Pharmaceuticals, Inc. v. Marion Merrell Dow, Inc.*, 93 F.3d 511, 516 (8th Cir.1996). Actual deception is presumed. *American Council of Certified Podiatric Physicians and Surgeons v. American Board of Podiatric Surgery, Inc.*, 185 F.3d 606, 614 (6th Cir.1999), citing *U-Haul Int'l, Inc. v. Jartran, Inc.*, 793 F.2d 1034, 1040 (9th Cir.1986). Under such circumstances, the Court "need not consider whether the consuming public was actually misled by the advertisement's falsity." *LensCrafters, Inc. v. Vision World, Inc.*, supra at 1488.

The Plaintiffs' evidence of literal falsity, being sufficient to raise a Jury issue, will, likewise, permit a Jury to conclude that the misleading element has also been met. In addition, the Plaintiffs furnished a telephone survey of repair shop managers which evidences a likelihood of confusion. The survey shows that consumers tend to read Bridgewood's claims as meaning that its devices will actually replace 100 percent of transmission fluid or, at least, more than 95 percent, and that most consumers would consider Bridgewood's claims misleading if the equipment actually replaced less than 90 percent of a vehicle's transmission fluid. See, *Preliminary Report of Jeffrey L. Stitt* at 12, *Larus Second Aff., Ex. 29*. Bridgewood's eight-person survey, in which customers are shown an actual advertisement, reveals that six out of the eight believed that the device would change more than 90 percent of a vehicle's used transmission fluid. *Declaration of Michael Rappeport* para. 16, *Bridgewood App. T11*. Irrespective of whether Bridgewood's claims are literally false, a reasonable Jury could find a likelihood that consumer deception exists. See, *Johnson & Johnson * Merck Consumer Pharmaceuticals Co. v. Smithkline Beecham Corp.*, 960 F.2d 294, 297, 298 (2nd Cir.1992) (plaintiff must demonstrate that "a statistically significant part of the commercial audience holds the false belief allegedly communicated by the challenged advertisement").

[55] [56] iv. *Materiality*. An advertising claim is material and, therefore, actionable under the Lanham Act and State law, if it is likely to influence the purchasing decisions of the consumers. *United Industries Corp. v. Clorox Co.*, supra at 1180. Bridgewood attempts to negate the existence of a genuine issue of fact, on the issue of materiality, by asserting that its advertisements were given to repair shops only upon delivery of its machines, and were to be used as promotional materials, which would be directed at the general public. We reject this argument as unsound. First, the evidence shows that the advertisements were used in trade

journals, were distributed at trade shows, and were mailed to prospective purchasers. See, *Burman Depo.* at 94-102; *Fitzsimons Depo.* at 89-94, 117-126, 133-137. Second, even if the materials were distributed only at the time of delivery, that would not eliminate their influence on the decisions by automotive repair shops as to the purchase of additional machines, or purchases, by other repair shops, whose customers were lured away by apparent guarantees of 100 percent fluid replacement.

On the contrary, there is substantial evidence in support of the Plaintiffs' position, that Bridgewood's claims materially influenced purchasing decisions. Valvoline Instant Oil Change ("Valvoline"), a major supplier of automatic transmission fluid changing services, seized upon Bridgewood's claims as a "point of differentiation" from Valvoline's competitors in its own marketing efforts. *Deposition of William J. Smelley* at 18, *Larus Second Aff., Ex. 15*. According to the Stitt Survey, between 75 percent, and 87 percent of repair shop managers, reported that they would be less likely to purchase one of Bridgewood's machines if its claims, that the machine replaces "100%," "all," or "virtually 100%," were untrue. *Preliminary Report of Jeffrey L. Stitt* at 12-13. The evidence does not permit a conclusion, as a matter of law, that Bridgewood's claims were not material to consumer purchasing decisions.

[57] *v. Injury*. Lastly, Bridgewood contends that the Plaintiffs have not shown that they have been, or are likely to be, damaged by its advertisements, so as to entitle them to injunctive or monetary relief. A complaining party's burden of establishing injury depends on the form of relief that it seeks. *LensCrafters, Inc. v. Vision World, Inc.*, supra at 1489. The Plaintiffs do not dispute that their prayer for injunctive relief became moot on April 30, 1998, when Bridgewood sold its business interests, and ceased the ostensibly offending advertising. See, *Comfort Lake Ass'n, Inc. v. Dresel Contracting, Inc.*, 138 F.3d 351, 354 (8th Cir.1998); see also, *LensCrafters, Inc. v. Vision World, Inc.*, supra at 1497 ("[T]he need for injunctive relief is obviated when the party accused of using false or misleading advertising represents that the advertisements will not be repeated."). The Plaintiffs claim, under the Deceptive Trade Practices Act, must be dismissed, because injunctive relief is the sole statutory remedy under the Act, and that issue was mooted before the Plaintiffs amended their Complaint to include a false advertising claim. See, Minnesota Statutes Section 325D.45; *Alsides v. Brown Institute, Ltd.*, 592 N.W.2d 468, 476 (Minn.App.1999), citing *Johnny's, Inc. v. Njaka*, 450 N.W.2d 166, 168 (Minn.App.1990). We may, therefore, refine our analysis of the Plaintiffs' false advertising claim, under the Lanham Act, so as to focus on their demand for monetary damages.

[58] To recover money damages for false advertising, the Plaintiffs must show both actual damages and a causal link between Bridgewood's alleged violation and those damages. See, *Blue Dane Simmental Corp. v. American Simmental Ass'n*, supra at 1042, quoting *United Industries Corp. v. Clorox Co.*, supra at 1180. A "[p]laintiff may not recover if he fails to prove that the defendant's actions caused the claimed harm." *Rhone-Poulenc Rorer Pharmaceuticals, Inc. v. Marion Merrell Dow, Inc.*, supra at 515, quoting *Harper House, Inc., v. Thomas Nelson, Inc.*, 889 F.2d 197, 209 (9th Cir.1989). Although a finding of literal falsity of a defendant's advertisement will trigger a presumption of injury sufficient to warrant injunctive relief, *LensCrafters, Inc. v. Vision World, Inc.*, supra at 1490, to sustain its claim for money damages, a plaintiff must still shoulder the full burden of showing injury and causation. See, *Porous Media Corp. v. Pall Corp.* ("Porous Media I"), 110 F.3d 1329, 1334 (8th Cir.1997) (distinguishing false comparison advertisements, which do give rise to presumption of injury and causation).

[59] In this case, the Plaintiffs have set forth substantial evidence of actual confusion among Bridgewood's customers. Hence, to be entitled to damages, the Plaintiffs need only show that, "as a result of this consumer confusion," the Plaintiffs "suffered actual injury, such as a loss of sales, profits, or of present value."

LensCrafters, Inc. v. Vision World, Inc., supra at 1490. The Plaintiffs identify three specific instances in which they lost sales to Bridgewood. In all three instances, Transclean delivered, or demonstrated, a TFX 5000 to or for a potential customer, including Valvoline, but was later refused a contract because the customer opted to buy from Bridgewood. See, *Viken Aff.*, para. 31-34. Combined with the consumer survey analysis, and the evidence that at least Valvoline relied upon the actionable portion of Bridgewood's advertising in its purchasing decision, the Plaintiffs have shown injury, and causation, sufficient to withstand Summary Judgment.

We recognize that damages may not be awarded on the basis of speculation or conjecture, see, *Porous Media Corp. v. Pall Corp.* ("Porous Media II"), 173 F.3d 1109, 1122 (8th Cir.1999), and that, if they prevail at Trial, some of the Plaintiffs' claimed damages may not be allowed on this ground. At this juncture, however, we need only discern-and, in fact, we do-that the Plaintiffs have provided the Jury with a means, beyond speculation, of awarding damages for the allegedly false advertising claims.

The Plaintiffs have set forth a genuine issue of fact as to all of the disputed elements of their Lanham Act false advertising claim. As a consequence, the Plaintiffs' paralleling claim, under the Consumer Fraud Act, survives Summary Judgment as well. Accordingly, the Plaintiffs' false advertising claim is only dismissed to the extent that it arises under the Minnesota Deceptive Trade Practices Act.FN34

FN34. This dismissal is without prejudice to the Plaintiffs' renewal of a Minnesota Deceptive Trade Practices Act claim should circumstances so warrant.

NOW, THEREFORE, It is-

ORDERED:

1. That the Defendant's Motion for Summary Judgment [Docket No. 79] is GRANTED, in part, and DENIED in part, such that the Plaintiffs' trademark infringement claims in Counts II, and III, are dismissed with prejudice, and the Plaintiffs' false advertising claim, under the Minnesota Deceptive Trade Practices Act, is dismissed without prejudice.
2. The Plaintiffs' Motion for Partial Summary Judgment on the Defendant's Patent Invalidity and Unenforceability Claims [Docket No. 80] is GRANTED in part, and DENIED in part, as more fully explained in the text of this Order.
3. The Plaintiffs' Partial Motion for Summary Judgment on Infringement [Docket No. 81] is GRANTED in part, and DENIED in part, as more fully explained in the text of this Order.

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