United States District Court, E.D. Texas, Sherman Division.

RETRACTABLE TECHNOLOGIES, Plaintiff. v. NEW MEDICAL TECHNOLOGIES, Defendant.

Nos. 4:02-CV-34, 4:03-CV-49

March 3, 2004.

Roy William Hardin, Kristen Renee Paris, Monty Lee Ross, Stephen David Wilson of Locke, Liddell & Sapp, Dallas, TX, for Plaintiffs, Retractable Technologies.

Stephen David Wilson of Locke, Liddell & Sapp, Dallas, TX, for Plaintiffs, Thomas Shaw.

Peter Kerr Munson, of Munson, Munson, Cardwell & Keese, Sherman, TX, David P. Irmscher, Baker & Daniels, Fort Wayne, IN, Shiv Ghuman O'Neill, Stacy L. Prall, Nancy G. Tinsley of Baker & Daniels, Indianapolis, IN, for Defendants.

John T. Cox, III, of Lynn, Tillotson & Pinker, LLP, Dallas, TX, for St. Paul Erdocs, PA.

MEMORANDUM OPINION

LEONARD DAVIS, District Judge.

This Claim Construction Opinion interprets disputed terms in United States Patents: 5,578,011 (the "011 Patent"); 6,090,077 (the "077 Patent"); and 5,385,551 (the "551 Patent").

BACKGROUND

Retractable Technologies, Inc. ("RTI") manufactures and sells retractable point safety syringes. Thomas J. Shaw invented and patented a type of retractable point safety syringe after he discovered that traditional syringes created a danger of infection from accidental needle stick injuries and from sharing among intravenous drug users. Essentially, Shaw invented a syringe that retracts the needle up into the syringe body after use and thus renders the syringe incapable of accidentally pricking someone or of being reused. Shaw granted RTI the exclusive license to the 011,077, and 551 Patents at issue in this case, and RTI sells and markets its syringes under the VanishPoint name. However, RTI is not the only seller of safety syringes and has brought this action against New Medical Technologies ("NMT") for patent infringement.

APPLICABLE LAW

In claim construction, courts examine the patent's intrinsic evidence to define the patented invention's scope. Bell Atlantic Network Servs., Inc. v. Covad Communications Group, Inc., 262 F.3d 1258, 1267 (Fed.Cir.2001). First, courts give "claim terms their ordinary and accustomed meaning as understood by one of ordinary skill in the art." Alloc, Inc. v. Int'l Trade Comm'n, 342 F.3d 1361, 1368 (Fed.Cir.2003); Teleflex, Inc. v. Ficosa North America Corp., 299 F.3d 1313, 1324 (Fed.Cir.2002) ("We begin our claim construction analysis, as always, with the words of the claim."); *Id*. Second, the court must determine whether it must deviate from the claim language's ordinary and accustomed meaning. Bell Atlantic Network Servs., Inc., 262 F.3d at 1268. There is a "heavy presumption" that claim terms carry their ordinary and customary meaning which is only rebutted if the patent "expresses an intention to impart novel meaning to [them]." Sunrace Roots Enter. Co., LTD v. SRAM Corp., 336 F.3d 1298, 1302 (Fed.Cir.2003); *Id*.

The presumption that claims carry their ordinary meaning "is overcome: (1) where the patentee has chosen to be his own lexicographer, or (2) where a claim term deprives the claim of clarity such that there is no means by which the scope of the claim may be ascertained from the language used." Bell Atlantic Network Servs., Inc., 262 F.3d at 1268. Patentees show "intent to deviate from the ordinary and accustomed meaning of a claim term by redefining the term or by characterizing the invention in the intrinsic record using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope." Teleflex, Inc., 299 F.3d at 1327. When a court defines a term, it "immerses itself in the specification, the prior art, and other evidence, such as the understanding of skilled artisans at the time of the invention, to discern the context and normal usage of the words in the patent claim." Alloc, Inc., 342 F.3d at 1368.

The Federal Circuit has held that "among the intrinsic evidence, the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." Teleflex, Inc., 299 F.3d at 1325. This is true because a patentee may define his own terms. Also, the specification may resolve ambiguous claim terms "where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone." Id. However, the specification may not redefine particular claim terms away from their ordinary meaning unless the intrinsic evidence "clearly set[s] forth or clearly redefine[s] a claim term so as to put one reasonably skilled in the art on notice that the patentee intended to so redefine the claim term." Bell Atlantic Network Servs., Inc., 262 F.3d at 1268 (internal quotations omitted). Thus, "although the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims." Comark Communications, Inc. v. Harris Corp., 156 F.3d 1182, 1187 (Fed.Cir.1998). While "[a]n accused infringer may overcome th[e] 'heavy presumption' [of ordinary meaning] and narrow a claim term's ordinary meaning, he cannot do so simply by pointing to the preferred embodiment or other structures or steps disclosed in the specification or prosecution history." Sunrace Roots Enter. Co., LTD v. SRAM Corp., 336 F.3d 1298, 1305 (Fed.Cir.2003).

THE 011 AND 077 PATENTS

The parties dispute terms used in both the 011 and 077 Patents. FN1 Specifically, the parties ask the Court to construe: "body," "nose portion," "retraction mechanism," "transition zone," "front end portion," "releasable stopper," "stopper," "dislodge," "front end configured to operate the retraction mechanism," "first position," "second position," "retraction position," "first pre-injection position," "vent," and "a releasable needle holder and needle frictionally held by the wall of the syringe body." In relevant part, the 011 patent provides:

FN1. The Court constructs the claim language of the 077 Patent and the 011 Patents together. The 077 Patent is a continuation of the 011 Patent. Generally, courts will construe continuation patents separately from their original patents where the patents have significant language differences. ResQNet.com, Inc. v. Lansa, Inc., 346 F.3d 1374, 1382 (Fed.Cir.2003). However, in this case the parties have stipulated that claims as used in the two patents should generally carry the same meaning. During the *Markman* hearing, NMT did not object to or disagree with RTI counsel's statement:

There is no contest between the parties that the same terms used in those patents [the 011 and 077 Patents] should be construed the same, I mean, for the claims in each patent. There is no dispute about that; that if we use a claim in the 011 Patent a claim term or word in the 011 Patent, it should have the same definition in the 077 Patent.

Transcript p. 38.

22. A tamperproof retractable syringe structure for injecting fluid into a patient comprising: a syringe body having a wall forming an elongated barrel portion with a smaller nose portion in front and a transition zone between the barrel portion and the nose portion;

a moveable plunger in the barrel portion having a front end and back end, the plunger having a head at the front end in sliding sealed contact with the interior of the barrel, a cap at the back end for applying thumb force to the plunger, and a cavity for receiving retractable parts;

a retraction mechanism disposed in the nose portion of the syringe body having retractable parts comprising a releasable needle holder and needle frictionally held by the wall of the syringe body with the needle extended from the nose portion, a biasing element applying a retraction force to the needle holder and a fluid path traversing the needle and needle holder;

the head of the plunger having an opening into said cavity, sized to receive the retractable parts and a releasable stopper extending from said opening, the stopper sealing the interior of the plunger from injection fluid stored in a variable chamber defined in the barrel between the retraction mechanism and the head of the plunger;

the plunger being depressible to a first position to expel injection fluid from the variable chamber through the fluid path in response to thumb pressure on said cap, said first position comprising the end of an injection;

said plunger being further depressible to a retraction position beyond the first position whereby said stopper is dislodged and said releasable needle holder is released from the syringe body and retracted into the cavity of the plunger a distance sufficient to withdraw said needle entirely within the syringe body;

said plunger being a length selected to remain graspable behind the barrel portion of the syringe body in the first position of the plunger and become ungraspable by withdrawal of the periphery of the cap within the syringe body in the second position of the plunger so that the retracted syringe cannot be tampered with.

In relevant part, the 077 Patent provides:

10. A syringe plunger handle assembly and syringe barrel combination for use in a retractable syringe for injecting fluids, comprising:

a hollow syringe body having an elongated tubular wall comprising an elongated barrel portion having an open back end;

an elongated plunger disposed for reciprocation in sliding sealed contact with the barrel portion of the body, the plunger having a tubular wall defining a head portion in front, a back end portion carrying a thumb cap and hollow interior comprising a retraction cavity located between the head portion and thumb cap;

the thumb cap having an outer side adapted to reside in close association with the open back end of the plunger barrel when the plunger is nearly fully depressed; and

the plunger having a vent in fluid communication with the retraction cavity, to allow airflow from the retraction cavity.

11. The combination of claim 10 wherein the vent in fluid communication with the retraction cavity is located at the rear end portion of the plunger.

12. The combination of claim 11 wherein said vent is an opening in the wall of the plunger.

25. A tamperproof retractable syringe structure designed for one use, comprising:

a hollow syringe body comprising a syringe barrel having an open back end, the barrel having a front end portion containing a retraction mechanism configured for operation by a plunger;

a plunger reciprocatably mounted in sliding sealed contact with the barrel, the plunger having a thumb cap at its back end for working the plunger relative to the barrel and a front end configured to operate the retraction mechanism;

the plunger having a tactile first position felt by a user pressing the thumb cap at the end of free travel of the plunger in the barrel when the plunger is moved forward to a stop, the plunger having a length relative to the length of the barrel whereby in the tactile first position the plunger a portion of the plunger and the thumb cap extend behind the barrel for grasping in order to draw fluid into the barrel by partially withdrawing the plunger from the barrel;

the plunger having a retraction position obtained by pressing the thumb cap to move the plunger forward beyond the tactile first position and thereby operating the retraction mechanism and simultaneously lodging the thumb cap in the open back end of the barrel thereby rendering the thumb cap inaccessible for grasping.

36. The tamperproof retractable syringe of claim 35 wherein the retraction mechanism comprises a needle holder held in an unretracted position by a removable ring member.

39. The tamperproof retractable syringe of claim 37 wherein the front end portion of the barrel comprises a nose portion of reduced diameter relative to the barrel, the nose portion principally containing the retraction mechanism.

41. A tamperproof retractable syringe structure designed for one use, comprising:

a hollow syringe body having a barrel having an open back end and a nose portion in the front of the barrel;

a plunger operated retraction mechanism lodged in the nose portion of the barrel;

an elongated plunger handle disposed for reciprocation in the barrel, the plunger handle having a front portion slidingly sealing the barrel to form a variable fluid chamber above the retraction mechanism, the plunger having a thumb cap with a diameter slightly less than the diameter of the open back end;

the plunger having a tactile first pre-injection position which is felt by moving the plunger forward until it stops without operating the retraction mechanism, leaving a portion of the plunger handle and the thumb cap positioned a sufficient distance behind the barrel for gripping to partially withdraw the plunger when filling the syringe with fluid;

the plunger having a second position obtained by returning the plunger to the first pre-injection position to substantially empty the syringe then moving the plunger forward to a retraction position beyond the tactile first pre-injection position thereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end for the barrel where it becomes inaccessible.

The Court addresses each disputed term in turn. *Body*

The parties dispute whether "body" means only a one piece structure or whether "body" may also refer to multiple-piece structures. The disputed instances of "body" appear in Claim 22 of the 011 Patent and Claims 10, 25, and 41 of the 077 Patent. The parties do not dispute that "body" generally means the outer structure of the syringe which houses the inner workings. Instead, the parties dispute whether the patentee has limited "body" to a one piece structure. NMT argues that "body" should be construed as "the one-piece hollow outer syringe structure that houses the syringe components and comprises a wall having an elongated barrel portion, a smaller diameter nose portion, and a transition zone in between," and RTI argues that "body" should be construed as "the hollow outer structure of the syringe that houses the components of the syringe." Although NMT points to language in the 011 and 077 patents which may indicate a manifest intent to limit "body" to a one piece structure, the Court must begin its analysis with the claim language. Teleflex, Inc., 299 F.3d at 1324.

The 011 Patent claims refer to "body" as a one piece structure in some instances and are silent in others. Claims 1 and 23 describe "a one piece body" and "a one piece hollow outer body" in several instances. 011 Patent, Col. 12, Ins. 62, 66, Col. 16, In. 12. In contrast, Claim 22 of the 011 Patent and Claims 10, 25, and 41 of the 077 Patent claim only "a syringe body" without any reference to "one piece."

Reading the claims together, the Court finds significance in the patentee's decision to include the words "one piece" in claims 1 and 23, but not in the others. Southwall Techs., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1579 (Fed.Cir.1995) (requiring Courts to examine claim terms in light of, and consistently with, one another). If the patentee had defined "body" as a one piece structure, then describing it as a one piece structure in Claims 1 and 23 would be redundant, and the inclusion of "one piece" in Claims 1 and 23 but nowhere else would be arbitrary. In contrast, if body simply meant any outer structure, then the terms "one piece" in Claims 1 and 23 would not be redundant, and the exclusion of "one piece" in the remaining claims would have meaning. The patentee must have chosen to include the words "one piece" in Claims 1 and 23, and to exclude them from the remaining claims for a reason. Based on the claim language, the only apparent reason for doing so is to limit Claims 1 and 23 to a one piece syringe body but allow the remaining claims

to cover any syringe body.

However, as NMT correctly points out, the intrinsic evidence strongly suggests that the inventor contemplated a one piece body. For example, the abstract describes a syringe with "a one piece hollow outer body." 011 Patent. Also the summary of the invention declares "the syringe structure features a one piece hollow outer body." *Id.* at Col. 2, lns. 40-41. Moreover, the Background of the Art section describes the number of parts which must be assembled as a "problem" with prior art. The 077 Patent's Abstract declares "a tamperproof retractable non-reusable syringe has a one piece hollow outer body with a barrel for a slidable plunger...." The Summary of the Invention states "The invention is a reliable tamperproof syringe having multiple tamperproof features which operates on a principle which permits low cost parts which are few in number and well suited for high speed mass production and assembly. The syringe structure features a one piece hollow outer body having a longitudinally extending wall which is stopped." Col. 3, lns. 2-9. Additionally, the patent describes a two piece barrel (part of the body) as one problem with the prior art because it "requires at least an additional part and assembly step." Col. 1-2, lns. 60-03. These examples indicate that the patentee considered a one piece body to be an important design consideration, and possibly part of the patent itself.

Despite the numerous references to a one piece body in the patent specification, however, the Court need not read to limit "body" to a one piece structure. Because an expert in the relevant field would not limit "body's" meaning to a one piece structure based on the word's own definition FN2, the Court begins with a heavy presumption that "body" is not limited to a one piece structure. *See* Sunrace Roots Enter. Co., LTD, 336 F.3d at 1302 (finding a "heavy presumption" that claim terms carry their ordinary and customary meaning which is only rebutted if the patent "expresses an intention to impart novel meaning to [them]"). The specification's statements regarding a one piece body do not overcome that heavy presumption because of the term "one piece" in Claims 1 and 23. The patentee addressed the concerns of a one piece body in Claims 1, 23, and their dependent claims by including the term "one piece." The patentee did not choose to incorporate "one piece" into the term "body" but rather chose to use the term "one piece" when it intended to so limit its patent claims. Thus, giving "body" its ordinary meaning does not read the specification's one piece concerns out of the patent, but rather recognizes the patentee's right to not be limited to the specification's terms. The specification does not overcome the heavy presumption in favor of "body's" ordinary meaning because the patentee placed any "one piece" limitations in the term "one piece."

FN2. *See e.g.*, MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY, 128 (10th ed.2001) (defining "body" as "the main, central, or principal part").

In sum, the Court finds that "body" in the 011 and 077 Patents simply means "hollow outer structure that houses the syringe's components." Ultimately, "the claims define the scope of the right to exclude; the claim construction inquiry, therefore, begins and ends in all cases with the actual words of the claim." Teleflex, Inc., 299 F.3d at 1324. The only construction of "body" that is consistent with the 011 and 077 Patents' claim language is a structure that may be one or more pieces. This reading is consistent with the specification, despite some indications to the contrary.

Nose Portion

The Court's construction of "body" in the 011 and 077 patents determines the construction of "nose portion." Generally, the parties agree that "nose portion" means "a section of the syringe body that has a reduced

diameter relative to the barrel portion of the body." However, as discussed *supra*, NMT would require the "nose portion" to be part of a one piece body and RTI would allow the patents to cover multi-piece bodies. The Court finds no cause within the ordinary definition of "nose portion" or any intrinsic evidence to place a one piece limitation within the term "nose portion." The words "nose portion" simply mean "a section of the syringe body that has a reduced diameter relative to the barrel portion of the body," and any limitations on how many pieces the body may be come from other words in the patent claims.

Likewise, the Court will not concede to the parties' requests to limit the term "nose portion" to a place where the retraction mechanism is located. Both parties would have the Court require the retraction mechanism to be located in the "nose portion" because of language such as "a retraction mechanism disposed in the nose portion of the syringe body" from Claim 22 in the 011 patent. While this language may indeed require the retraction mechanism to be lodged in the "nose portion," that requirement does not come from the words "nose portion" but rather from the words "disposed in." The parties have not asked the Court to construe phrases such as "disposed in the nose portion." They have instead asked the Court to construe "nose portion," and without any evidence that the drafter intended the two words "nose portion" to by definition house the retraction mechanism, the Court will not so limit those words.

Retraction Mechanism

The parties also ask the Court to construe the term "retraction mechanism" in Claim 22 of the 011 Patent and Claims 25, 36, and 41 of the 077 Patent. With little argument, NMT asserts that "retraction mechanism" means "the needle holder and spring." In contrast, RTI proposes that "retraction mechanism" means "a mechanism comprising, at least, a needle holder and biasing element." The Court notes that the parties have asked the Court to interpret only the two words "retraction mechanism."

Again, the Court begins with the ordinary meaning of "retraction mechanism." "Mechanism" means "a piece of machinery," and "retract" means "to draw back in." MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY 719, 997 (10th ed.2001). Machine is further defined as "a mechanically, electrically, or electronically operated device for performing a task." *Id.* at 695. Thus the Court begins with a heavy presumption that "retraction mechanism" means "a device which draws back in." The parties do not direct the Court to evidence from the specification which would limit "retraction mechanism" to a needle holder and biasing element, but rather take those limitations from claim language.

Claim 22 of the 011 Patent and Claim 36 of the 077 Patent limit "retraction mechanism." In relevant part, Claim 22 of the 011 Patent declares:

a retraction mechanism disposed in the nose portion of the syringe body having retractable parts comprising a releasable needle holder and needle frictionally held by the wall of the syringe body with the needle extended from the nose portion, a biasing element applying a retraction force to the needle holder and a fluid path traversing the needle and needle holder.

Claim 36 of the 077 Patent, which is dependent on Claim 25 of the 077 Patent, declares that "the retraction mechanism comprises a needle holder held in an unretracted position by a removable ring member." Claims 25 and 41 of the 077 Patent use "retraction mechanism" without any definition. Thus, the "needle holder" and "biasing element" limitations come from definitions provided in Claim 22 of the 011 Patent and Claim 36 of the 077 Patent.

Claim 36 of the 077 Patent does not limit Claim 25 of the 077 Patent. Under the theory of claim differentiation, "there is a rebuttable presumption that different claims are of different scope." Sunrace Roots Enter. Co., LTD v. SRAM Corp., 336 F.3d 1298, 1303 (Fed.Cir.2003). That presumption is "especially strong" where the limitation under consideration is the only meaningful difference between the independent and dependent claim and a party argues that the limitation in the dependent claim should be read into the independent claim. *Id.* Here, Claim 36 is dependent on Claim 25 via Claim 35.FN3 The only meaningful difference between Claim 35 and 36 is Claim 36's limitation on the "retraction mechanism." Thus, there is an "especially strong" presumption that "retraction mechanism" as used in Claim 35 does not include Claim 36's limitations. Because Claim 35 does not change the definition of "retraction mechanism" from Claim 25, the Court must read those definitions consistently and find that Claim 36 also does not limit Claim 25.

FN3. Claim 35 is dependent on Claim 30, which is dependent on Claim 26, which is dependent on Claim 25.

Furthermore, if "retraction mechanism" as used in Claim 25 does not contain Claim 36's limitations, then "retraction mechanism" as a term should not contain Claim 36's limitations. The Court sees no reason to apply dependent Claim 36's limitations to wholly unrelated claims like Claim 22 of the 011 Patent and Claim 41 of the 077 Patent. Also, to apply Claim 36's limitations to other claims but not to Claim 25 would create competing definitions of "retraction mechanism" without reason. Therefore, reading all claims consistently, "retraction mechanism" in Claim 22 of the 011 Patent and in Claim 41 of the 077 Patent also do not contain Claim 36's limitations.

The Court also finds that NMT's proposed definition is inappropriate for Claims 25 and 41 of the 077 Patent. As noted above, Claims 25 and 41 do not restrict the term "retraction mechanism," and Claim 36's limitations should not be read into the other claims. Thus, any restrictions on "retraction mechanism" in Claims 25 and 41 of the 077 Patent must come from Claim 22 of the 011 Patent.FN4 Furthermore, both parties's proposed definitions implicitly agree that Claim 22 of the 011 Patent must limit "retraction mechanism" as used in the remaining claims. The Court rejects NMT's proposed construction because there is no basis to limit the "retraction mechanism" to something that employs a spring. Claim 22 uses the term "biasing element" rather than spring. The parties have not asked the court to construe "biasing element," but it is presumably a broader term than "spring."

FN4. The parties have agreed that terms used in the 077 and 011 Patents have the same meaning. See fn. 1 supra.

In conclusion, the Court defines "retraction mechanism" as a "device which draws back in comprising, at least, a needle holder and biasing element." As discussed above, the term "a device which draws back in" directly reflects the term's plain and ordinary meaning. Also, the language "comprising, at least, a needle holder and biasing element" reflects limitations from Claim 22 of the 077 Patent which the parties have agreed should exist in this term. The parties have agreed to those limitations by including them in their proposed constructions. The Court does not adopt NMT's construction because it finds no basis to limit the device to a spring. The Court expands RTI's construction with the phrase "a device designed to draw back in" to more accurately describe the "retraction mechanism's" purpose. Finally, as discussed *supra*, the Court does not read Claim 36's limitations into the other claims.

Transition Zone

Turning to the term "transition zone" in Claim 22 of the 011 Patent, it is unclear exactly how the parties proposed definitions differ from one another. NMT argues that "transition zone" means "the portion of the outer body between the barrel portion and the smaller diameter nose portion of the body," and RTI argues "an area between the barrel portion and the smaller diameter nose portion of the syringe body." According to the proposed definitions, it appears that the only dispute between the parties is whether the "transition zone" is part of the "body." FN5

FN5. RTI's Markman Brief contains allegations that NMT would require the "transition zone" to be tapered. The Court does not find that argument in NMT's submissions and thus disregards it.

The Court finds that "transition zone" in Claim 22 is a part of the syringe body. In relevant part, Claim 22 states: "a syringe body having a wall forming an elongated barrel portion with a smaller nose portion in front and a transition zone between the barrel portion and the nose portion." This portion of the claim is describing a "syringe body" and the "transition zone" as a part of that body. Thus, Claim 22 explicitly defines "transition zone" as a part of the syringe body. Consequently, the Court adopts NMT's proposed construction: "portion of the outer body between the barrel portion and the smaller diameter nose portion of the body."

Front End Portion

The Court construes "front end portion" in Claims 25 and 39 of the 077 patent as a "section of the syringe at the injection end." The parties do not dispute that the "front" of the syringe is the injection end. The only issue in dispute is NMT's assertion that "front end portion" is synonymous with "nose portion." NMT asserts that its construction is proper because the Summary of the Invention declares that the retraction mechanism is lodged in the nose of the body and Claim 25 states that the "front end portion" contains the retraction mechanism. Assuming arguendo that both the nose portion and the "front end portion" must contain the retraction mechanism, it does not follow that the "nose" portion and the "front end portion" are exactly the same. The nose, being at the front of the syringe will certainly be part of the "front end portion." However, the "front end portion" could include more than just the "nose." There is no intrinsic evidence limiting the "front end portion" to only the nose, and thus the Court will not find such a limitation.

Releasable Stopper

The parties next ask the Court to construe "releasable stopper" in Claim 22 of the 011 Patent.FN6 The parties do not dispute that the term "stopper" ordinarily means "something inserted to close an opening" and that the term "releasable" ordinarily means "capable of being freed." Thus, the ordinary meaning of "releasable stopper" is "something inserted to close an opening which is capable of being freed." RTI proposes that "releasable stopper" simply means "a member that seals or closes one end of the plunger and can be freed such that it no longer seals or closes." In contrast, NMT proposes that "releasable stopper" means "a plug capable of being freed from its position where it is fitted in the opening of the plunger which slides relative to the plunger opening after the injection is complete and before retraction of the needle." Because the relevant portion of Claim 22 discusses a plunger, RTI properly limits its definition to a stopper which closes the plunger. However, the Court must determine whether the claim language and other intrinsic evidence require the restrictions in NMT's proposed construction.

FN6. NMT also asks the Court to construe the term "stopper" separately from "releasable stopper." Claim

22 provides in relevant part: "the head of the plunger having an opening into said cavity, sized to receive the retractable parts and a releasable stopper extending from said opening, the stopper sealing the interior of the plunger...." NMT does not explain, and the Court cannot imagine, how the second "stopper" could refer to anything other than "releasable stopper." This is a prime example of the many instances where NMT has attempted to unnecessarily multiply and complicate the issues in this claim construction. The Court will not indulge NMT's request for duplicative analysis and disregards NMT's "stopper" arguments.

The Court rejects NMT's proposed construction. NMT's proposed construction apparently comes from Claim 6 of the 011 Patent. Claim 6 claims:

The tamperproof retractable syringe of claim 5 wherein the plunger head has a tip with an opening sealingly closed by a dislodgeable held stopper which slides relative to the plunger in response to dislodging force applied by depression of the plunger at the end of the injection cycle before retraction occurs.

It is apparent that Claim 6 is dependent on Claim 5 and thus that its restrictions are directly aimed at Claim 5. NMT has provided no briefing on its proposed construction, so the Court is somewhat at a loss to understand why it should apply Claim 6's restrictions to Claim 22 when those claims are wholly separate.FN7 Because the drafter intended for Claim 6 to limit Claim 5 and because Claim 22 is unrelated to either Claims 5 or 6, the Court finds that a person of skill in the art would not read Claim 6 as a limitation on Claim 22. Therefore, the Court rejects NMT's proposed construction and adopts RTI's statement of "releasable stopper's" ordinary meaning as used in Claim 22: "a member that seals or closes one end of the plunger and can be freed such that it no longer seals or closes."

FN7. The Court takes NMT's proposed construction from the Amended Consolidated Claim Interpretation Chart ("Chart") jointly submitted by the parties. To facilitate the claim construction process, the Court requires parties in patent cases to submit a claim interpretation chart as a matter of course. The Chart lists disputed terms along with proposed constructions. In this case, the parties submitted the Chart after briefing. Moreover, NMT chose to change its proposed construction in the Chart from that proposed in briefing. Because the Chart is the parties' most recent statement of their positions to the Court, the Court examines the Chart's proposed construction even though NMT submitted no supporting argument.

Dislodge

The Court next addresses "dislodge" as used in Claim 22 of the 011 Patent. Both RTI and NMT agree that the ordinary meaning of "dislodge" is "to be moved from a settled position" or "to cause to shift from a fixed position." Nevertheless, NMT would interpret "dislodge" to mean "to slide the stopper relative to the plunger until it is free from the opening in the plunger." According to NMT's briefing, it offers such a construction because the specification does not permit something to be "dislodged" by breaking off.

In short, the Court does not find any intrinsic evidence which limits the ordinary meaning of "dislodge" as used in Claim 22 of the 011 Patent. First, the claim language does not limit "dislodge" in any way from its ordinary meaning. Second, the Court does not find manifest intent to limit the definition of "dislodge" from statements in the 077 Patent describing a preferred embodiment. NMT argues that the Court should limit Claim 22 to a preferred embodiment because "the only embodiment disclosed in the patent specification is a plug slidingly mounted in the opening of the plunger that slides relative to the plunger until it is free of the

plunger opening." However, as the Federal Circuit has mandated, "an accused infringer cannot overcome the 'heavy presumption' that a claim term takes on its ordinary meaning simply by pointing to the preferred embodiment or other structures or steps disclosed in the specification or prosecution history." Teleflex, Inc., 299 F.3d at 1327. The Court does not find evidence sufficient to overcome the heavy presumption that "dislodge" carries its ordinary meaning in the language NMT cites from either the 011 or 077 Patents. Thus, "dislodge" means "to be moved from a settled position."

Front End Configured to Operate the Retraction Mechanism

The Court adopts RTI's construction of "front end configured to operate the retraction mechanism" in Claim 25 of the 077 Patent. "Front end" undisputedly refers to the plunger's end closest to the needle. "Configured" means "to set up for operation." MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY 241 (10th ed.2001). Thus, RTI's proposed construction, "the portion of the plunger closer to the injection end of the syringe that operates the retraction mechanism" mirrors the term's ordinary meaning. Nonetheless, NMT would limit the term's ordinary meaning to "a dislodgeable stopper fitted into the opening in the plunger at the end closest to the injection end of the syringe" based solely on a preferred embodiment discussed in the 077 Patent. *See* 077 Patent Col. 3 In. 54-Col. 5 In. 8. Nothing in the preferred embodiment indicates an intent to redefine the term and NMT cannot overcome the term's ordinary meaning simply by pointing to a preferred embodiment. Sunrace Roots Enter. Co., LTD, 336 F.3d at 1305.

First Position, Second Position, Retraction Position, and First Pre-injection Position

Because the terms "First Position," "Second Position," "Retraction Position," and "First Pre-injection Position" follow the same analysis, the Court construes them together. These four terms are used in the 011 and 077 patents to refer to positions the syringe plunger takes during operation. Whenever a claim uses one of these four terms, the claim itself defines the term. The Court cannot more clearly define the terms than the claims have because (1) the claims clearly define the terms and (2) the terms are defined differently from claim to claim.

"First position" as used in Claim 22 of the 011 Patent and Claim 25 of the 077 Patent illustrates the Court's reasoning. Claim 22 of the 011 Patent states in relevant part:

the plunger being depressible to a first position to expel injection fluid from the variable chamber through the fluid path in response to thumb pressure on said cap, said first position comprising the end of the injection;

said plunger being further depressible to a retraction position beyond the first position whereby said stopper is dislodged and said releasable needle holder is released from the syringe body and retracted into the cavity of the plunger a distance sufficient to withdraw said needle entirely within the syringe body;

said plunger being a length selected to remain graspable behind the barrel portion of the syringe body in the first position of the plunger and become ungraspable by withdrawal of the periphery of the cap within the syringe body in the second position of the plunger so that the retracted syringe cannot be tampered with.

Claim 25 of the 077 Patent describes the "first position"

the plunger having a tactile first position felt by a user pressing the thumb cap at the end of free travel of the plunger in the barrel when the plunger is moved forward to a stop, the plunger having a length relative to the

length of the barrel whereby in the tactile first position of the plunger a portion of the plunger and the thumb cap extend behind the barrel for grasping in order to draw fluid into the barrel by partially withdrawing the plunger from the barrel;

NMT's proposed definition of "first position" directly contradicts the claim definitions. NMT proposes that "first position" in Claim 22 of the 011 Patent and in Claims 25 and 41 of the 077 Patent means "the plunger is in the 'first position' when injection of the medication into the patient is complete; the plunger is still graspable behind the barrel portion of the syringe body and retraction has not begun." Claim 22's definition appears to match NMT's proposed definition because the inventor has described "first position" in Claim 22 of the 011 Patent as the depressed position at the end of the injection where fluid is expelled from the injection chamber and the plunger is still graspable. However, NMT's definition contradicts Claim 25 because that claim defines "first position" as a position before "draw[ing] fluid into the barrel" instead of after "injection of medication into the patient is complete." The Court will honor the inventor's choice to define "first position" as it is used in each claim, and will not place one over-arching definition on "first position" across all claims that contradicts the claim language.

Additionally, NMT's proposed construction adds nothing to the claim language. The very purpose of the above-cited claim language is to define "first position." Rather than asking the Court to resolve an ambiguous term in the claim definition or to resolve something unclear in the claim definition, NMT simply deletes words that apply to other positions and rearranges what is left. Indeed, NMT has not made it clear to the Court exactly what is unclear about the claim definitions of "first position." Where the claim definitions appear to be facially clear and the parties have not identified any ambiguities, the Court finds it imprudent to reword the claim definitions. *See* Bell Atlantic Network Servs., Inc. v. Covad Communications Group, Inc., 262 F.3d 1258, 1267 (Fed.Cir.2001) (a claim's ordinary meaning "is overcome: (1) where the patentee has chosen to be his own lexicographer, or (2) where a claim term deprives the claim of clarity such that there is no means by which the scope of the claim may be ascertained from the language used.")

Even though the Court has only discussed the term "first position," the Court finds that its analysis applies to the terms "Second Position," "Retraction Position," and "First Pre-injection Position." NMT's proposed definitions of those terms add nothing to the claim definitions. The Court does not give a written analysis of each term as used in each claim in the interests of judicial economy and because NMT has not identified ambiguities in the claim definitions. Indeed, given the clarity of the claim definitions and the absence of any clearly identified construction issues, the Court does not understand why the parties could not resolve these constructions amongst themselves.

In sum, the Court rejects NMT's proposed constructions. The proposed constructions are not helpful in construing the claims because they are unnecessary in light of the claims' own definitions. Additionally, NMT has not pointed the Court to any specific terms within the claim definitions which it considers ambiguous or in dispute, and NMT's proposed definitions are not consistent with all applicable claims. Although the Court has only discussed the "first position," the Court's conclusions apply to all four terms. Thus, the Court finds that the claim definitions are facially clear and will not limit them beyond their clear and ordinary meanings. *Id*.

Vent

The Parties also ask the Court to construe "vent" as used in Claims 10, 11, and 12 of the 077 Patent. Claim 10 provides in relevant part: "the plunger having a vent in fluid communication with the retraction cavity, to

allow airflow from the retraction cavity." Claims 11 and 12 are dependent claims of Claim 10 and restrict where on the plunger the vent may be located. Relying on the dictionary definition, RTI asks the Court to construe "vent" as "an opportunity or means of escape, passage, or release." NMT, relying on the vent's stated purpose in the patent specification, argues that the Court should construe "vent" as "a passageway that relieves pressure in the retraction cavity at the time of retraction.

The Court adopts RTI's proposed construction as closer to "vent's" plain meaning than NMT's. NMT's definition limits the "vent's" function to relieving pressure. While in some respects pressure is what always causes a gas or fluid to move from one place to another, the Court would not clutter "vent's" construction with that concept. This is particularly appropriate in this instance because NMT's support for defining "vent" in terms of pressure is language from the specification that does not demonstrate a manifest intent to limit "vent's" meaning. Furthermore, NMT's proposed construction contains limitations such as "at the time of retraction" which have not been briefed or otherwise explained. Without any indication why those limitations are in the proposed definition, the Court will not adopt them.

A Releasable Needle Holder and Needle Frictionally Held by the Wall of the Syringe Body

The Parties also ask the Court to construe the term "a releasable needle holder and needle frictionally held by the wall of the syringe body" in Claim 22 of the 011 Patent. Both parties agree that the Court's construction should begin with "a releasable needle holder and needle kept in the nose portion of the syringe body." However, the parties disagree on the definition of "frictionally held by the wall of the syringe body." RTI's proposed construction states "by forces present between the needle holder and wall of the syringe body," and NMT's states "by a force generated along a sliding interface between two cooperating surfaces ."

The Court's greatest difficulty in construing this term comes from the parties' failure to explain to the Court how their proposed constructions differ. Friction is defined as "the rubbing of one body against another," or "the force that resists relative motion between two bodies in contact." MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY 466 (10th ed.2001). Thus, "frictionally held by the wall of the syringe body" must mean that the body creates a holding force by rubbing against something else. RTI's definition reflects this notion by requiring force between the needle holder and syringe body. The Court's problem is that the specification language from which NMT finds the "sliding interface" makes clear that the "sliding interface" is simply the "needle holder" and "body." For example, Claim 1 language NMT relies on declares "the needle holder having an elongated body ... having a cooperating outwardly facing surface configured to cooperate with said inwardly facing surface to produce said ... frictional holding force," and "the inwardly facing surface in the wall [of the body] and the cooperating outwardly facing surface on the needle holder are friction surfaces which cooperate to produce said ... frictional holding force." Thus, according to NMT's own intrinsic evidence, the "cooperating surfaces" are simply the needle holder and body. Unfortunately neither party deigned to explain exactly how the proposed definitions differ.

The Court finds that the term "a releasable needle holder and needle frictionally held by the wall of the syringe body" means "a releasable needle holder and needle kept in the nose portion by friction with the syringe body." This construction appears to be consistent with both parties arguments, and more importantly with the plain and ordinary meaning of the claim terms. NMT's language requiring a "sliding interface between two cooperating surfaces" appears to simply refer back to the needle holder and body. As such, NMT's language appears to cloud the issue rather than clarify the claim. Indeed, if this claim is truly worth expending the Court's and the parties' time and resources, the parties should have provided the Court with clearer briefing. Moreover, if the parties are truly in agreement, as they appear to be, then they should have

resolved this issue themselves without further burdening the Court's time and resources.

THE 551 PATENT

In the 551 Patent, the parties dispute the terms "sliding interface," "friction force," "relative sliding movement," "sliding axial movement of the retainer member," "release element," "transition zone," and "retainer member." In relevant part, the 551 Patent declares:

1. In a medical device having a retraction mechanism with a needle for injecting or collecting fluid, an elongate hollow body containing a retraction mechanism and a movable member, slidable axially in the body, the retraction mechanism including a needle holding member having an unretracted position wherein the needle is extended from the body while being biased toward a retracted position entirely within the body, a biasing element for applying retraction force to the needle holding member in a retraction direction, and a release element capable of holding the needle holding member against the retraction force provided by the biasing element, the release element being triggered to release the needle holding member for retraction of the needle in response to selective movement of the movable member, the improvement comprising:

The needle holding member and release element are separable members coupled, along a sliding interface oriented in the direction of retraction, with a friction force which exceeds the retraction force;

Retraction is initiated by relative sliding movement between the needle holding member and the release element, caused by selective movement of said movable member; and

Retraction occurs by reduction of the extent of said sliding interface in response to said relative sliding movement, until retraction force exceeds said friction force, whereby said needle holding member separates from said release element and moves into said retracted position.

2. The medical device of claim 1 characterized in that said elongate hollow body has a hollow first end portion separated by a transition zone from a hollow second end portion wherein substantially all of the retraction mechanism is located within said first end portion of the body below the transition zone.

23. In a nonreusable syringe for dispensing fluid medication, a hollow syringe body having a front portion for receiving a needle assembly and a rear portion for receiving a plunger, a plunger disposed partially within the syringe body, having a head and with a piston means in sliding sealed contact with the interior of the syringe body and defining a variable fluid chamber below the piston, the needle assembly having a needle holder releasably mounted within said front portion having a needle fixed therein, with one end of the needle in fluid communication with said chamber and extending from the syringe body in use position, a biasing element which acts to bias the needle holder inwardly of the front portion of the needle within the syringe body in response to the action of the biasing element, the improvement comprising:

The release element is a retainer member surrounding the needle holder and serving to hold the needle holder against the biasing influence of said biasing element acting on the needle holder with the needle extended from the syringe for use:

said retainer member and the needle holder are assembled with a sliding interface between them;

the needle holder is selectively released by gradual reduction of the sliding interface caused by sliding axial movement of the retainer member relative to the stationary needle holder in response to depression of the plunger.

24. The nonreusable syringe of claim 23 characterized in that the syringe body is defined by an elongated wall having a transition zone which separates said front portion from said rear portion, said combined needle holder and retainer member slidingly sealing said front portion from said rear portion below said transition zone, in a manner that prevents fluid introduced above the transition zone from contacting the biasing element.

The Court addresses each disputed term in turn.

Sliding Interface

The parties dispute whether "sliding interface" as used in Claims 1 and 23 of the 551 Patent is limited to things "axially aligned" and "laterally contacting." Claims 1 and 23 do not define "sliding interface," but the dictionary defines "slide" as "to move smoothly along a surface" and "interface" as "a surface forming a common boundary of two bodies, spaces, or phases." MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY 609, 1101 (10th ed.2001). Thus, RTI's proposed definition, "a common boundary between two surfaces that can move along in smooth, continuous contact," appears to match the plain and ordinary meaning of "sliding interface." However, NMT argues that RTI's proposed definition is too expansive and that based on intrinsic evidence "sliding interface" properly means "the axially aligned, frictional contact area between laterally contacting surfaces of the needle holding member and the release element." To overcome "sliding interface's" ordinary and plain meaning, NMT must direct the court to "words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope." Teleflex, Inc. v. Ficosa North America Corp., 299 F.3d 1313, 1327 (Fed.Cir.2002).

NMT argues that the specification explicitly "defines" the term "sliding interface" as having "laterally facing" surfaces. NMT cites the Summary of the Invention stating "the needle holding member ... ha[s] ... a head portion with laterally facing surface which frictionally engages a cooperating surface on the coupled retainer member which defines the sliding interface." Defs' Markman Brief on U.S. Patent No. 5,585,551, p. 10-11 (citing 551 Patent, col. 4, lns. 56-61). NMT claims that the patentee manifestly limited "sliding interface" to something with a "laterally facing surface" by using the word "defines" in the specification.

The Court disagrees with NMT's reading of the 551 Patent specification because NMT's quoted language describes only a preferred embodiment. NMT's ellipses omit the word "preferably" from the quoted sentence. The Summary of the Invention actually declares "the needle holding member is *preferably* cylindrically T-shaped, having a stem portion serving as a guide for the biasing spring, and a head portion with laterally facing surface which frictionally engages a cooperating surface on the coupled retainer member which defines the sliding interface." 551 Patent, col. 4, lns. 56-61 (emphasis added). The language following the word "having" in the previously cited sentence describes the *preferred* "cylindrically T-shaped" embodiment. Thus, NMT improperly asks this Court to limit the 551 Patent to a preferred embodiment. Teleflex, Inc., 299 F.3d at 1327.

NMT also argues that language from dependent Claims 5 and 8 require the "sliding interface" to have "laterally contacting surfaces." Claims 5 and 8 are both dependent on disputed Claim 1 of the 551 Patent. Claim 5 claims in relevant part "the medical device of claim 4 [dependent on Claim 1] characterized in that

the needle holding member has a head portion ... having a laterally facing surface which frictionally engages the coupled retainer member and defines said sliding interface." 551 Patent, Col. 16, Ins. 5-10. Claim 8 claims in relevant part "the medical device of claim 7 [dependent on Claim 1] characterized in that ... said needle holder is smaller than said internal opening such that a portion of said retainer member extends laterally inwardly, below said stop member, to the sliding interface where it is coupled to the needle member to expose a generally transverse surface." Because these two dependent claims describe a "laterally facing surface," NMT argues that the patentee limited the "sliding interface" in all claims to something with a laterally facing surface."

The Court rejects NMT's attempt to import limitations from dependent claims into independent claims. The doctrine of claim differentiation creates a presumption that different claims have different scopes. Sunrace Roots Enter. Co., LTD v. SRAM Corp., 336 F.3d 1298, 1303 (Fed.Cir.2003); Kraft Foods, Inc. V. Inter Trading Co., 203 F.3d 1362, 1368 (Fed.Cir.2000). Although the presumption applies to all claims, it is particularly strong where the limitation under consideration is the only meaningful difference between the independent claim and a party argues that the limitation in the dependent claim should be read into the independent claim. *See* Sunrace Roots Enter. Co., LTD, 336 F.3d at 1303. Although the "laterally facing surface" limitation is not the only difference between Claim 1 and Claims 5 and 8, claim differentiation does create a presumption that the patentee chose to not include the "laterally facing surface" limitation in Claim 1 (and Claim 23) for a reason. Against this presumption, NMT points only to one preferred embodiment. As discussed *supra*, that preferred embodiment does not express a manifest intent to limit claim scope. Thus, the Court will not limit "sliding interface" to only things with "laterally facing surface[s]."

The Court further finds no need to import NMT's "axially aligned" limitation into the term "sliding interface." Compared with the somewhat ambiguous term "axially aligned," FN8 disputed Claims 1 and 23 plainly describe the direction in which the "sliding interface" is oriented. For instance, Claim 1's description of "a sliding interface oriented in the direction of retraction" FN9 unambiguously tells the reader that the interface will slide in the "direction of retraction." Furthermore, the term "axial" already exists in Claim 23. Claim 23 declares that "the needle holder is selectively released by gradual reduction of the sliding interface caused by sliding axial movement of the retainer member.... " 551 Patent, col. 18, Ins. 42-45. Thus, any limitation on the direction the "sliding interface" moves is included in the term "sliding axial movement." The Court interprets "sliding axial movement" infra, and finds that incorporating an "axial" limitation into "sliding interface" in Claim 23 would be redundant. Simply stated, because disputed Claims 1 and 23 describe the direction in which the "sliding interface" moves, incorporating the term "axially aligned" into "sliding interface" would be redundant and unnecessarily confusing. *See* United States Surgical Corp. v. Ethicon, Inc., 103 F.3d 1554, 1568 (Fed.Cir.1997) ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in determination of infringement. It is not an obligatory exercise in redundancy.").

FN8. The Court describes "axially aligned" as ambiguous because NMT never informs the Court exactly what it intends that term to mean. The Court can envision different circumstances where "axially aligned" would either mean "oriented exactly parallel with an axis" or "oriented generally in the direction of an axis." Thus, adopting NMT's proposed definition would place unclear limitations on the claim scope. Furthermore, a proposed claim construction that is unclear to the Court after briefing cannot be a construction that would assist the jury in determining claim infringement.

FN9. 551 Patent, col. 15, lns. 40-42.

In sum, the Court adopts RTI's proposed construction and finds that "sliding interface" means "a common boundary between two surfaces that can move along in smooth, continuous contact." RTI's definition parallels the term's plain and ordinary meaning. Moreover, NMT's proposed definition incorporates limitations that the claims and specification do not required and which would be unnecessarily confusing and redundant.

Friction Force

The term "friction force" appears clear on its face. Neither party disputes the meaning of either "friction" or "force." Indeed, both terms are of such common usage in our society that one could not dispute their meaning. Instead, NMT asks the Court to adopt a verbose definition drawing on concepts scattered throughout the 551 Patent in an attempt to define the simple term "friction force." NMT proposes that "friction force" means "the force generated along the sliding interface between the contacting surfaces of the release element and needle holding member that resists the relative sliding movement between the needle holder and the release element." Rather than explaining why the term "friction force" must be construed in the first place, NMT makes assorted arguments for complex limitations based on the intrinsic evidence. The Court finds that NMT's proposals are confusing, redundant, and unnecessary for the simple term "friction force."

Relative Sliding Movement

The Court likewise finds that the term "relative sliding movement" as used in Claim 1 of the 551 Patent is clear on its face. Claim 1 declares "retraction is initiated by relative sliding movement between the needle holding member and the release element." In context, the disputed term appears to clearly describe the "needle holding member" and "release element" "sliding relative to one another," and neither party explains how this term is ambiguous on its face.

Moreover, both proposed constructions are improper. RTI's proposed construction, "smooth, continuous moving contact between two surfaces," omits the "relative" language. NMT's proposed construction, "smooth, unobstructed axial movement of the release element with respect to the stationary needle holding member," imports two unwarranted limitations: unobstructed and stationary. Even though the word "unobstructed" never appears in the 551 Patent, NMT asks the Court to limit Claim 1 to "unobstructed" sliding movement based on the patent's discussion of prior art which relied upon "bending, flexing, or breaking of release elements." However, the patent's discussion of bending, flexing, and breaking release elements does not represent a clear disavowal of Claim 1's scope. Additionally, whether the "needle holding member" is stationary has to do with construction of the term "needle holding member" not the term "relative sliding movement." Because NMT did not ask the Court to construe the term "needle holding member," the Court will not do so.

Sliding Axial Movement of the Retainer Member

The term "sliding axial movement of the retainer member" in Claim 23 of the 551 Patent means the "sliding movement of the retainer member along the syringe axis." The terms "sliding" and "movement" are of common usage and their definitions are beyond dispute. Additionally, both parties' proposed definitions include the term "retainer member" without further explanation, so the Court considers that term beyond

dispute.FN10 Finally, both parties agree that "axial" means along the syringe axis. Apparently the only real dispute between the parties is whether the movement must be "unobstructed." As discussed in the previous subsection, *supra*, the Court declines to read the word "unobstructed" into the patent.

FN10. RTI's proposed construction is "smooth, continuous moving contact of the retainer member in the direction of the syringe axis," and NMT proposes "smooth, unobstructed movement of the retainer member in the direction of the longitudinal axis of the syringe."

Release Element and Retainer Member

The Court addresses the terms "release element" FN11 and "retainer member" FN12 together because NMT argues that the two are inextricably intertwined. Indeed, NMT argues that one cannot define "retainer member" without using the term "release element." Thus, NMT proposes that "retainer member" mean "a release element that surrounds the needle holding member." Furthermore, NMT argues that a person of ordinary skill in the art would read the two-word term "release element" as "a separable member that frictionally engages the needle holding member along the sliding interface and itself holds the needle holding member against the retraction force provided by the biasing element until it moves axially thereby reducing the area of the sliding interface until the retraction force exceeds the remaining friction force." Moreover, all of the limitations from NMT's definition of "release element" would also apply to "retainer member" because NMT's "retainer member" construction incorporates "release element."

FN11. Used in Claims 1 and 23.

FN12. Used in Claims 23 and 24.

First, the Court finds that a "release element" is simply a "part that holds and later frees the needle holding member." The plain and ordinary meaning of "release element" is a "part that has to do with releasing or freeing." Furthermore, neither party disputes that the 551 Patent clearly envisions the "release element" as something which is initially involved in holding the needle holding member. The Court further notes that while Claim 1 does not restrict the scope of "release element," Claim 23 clearly defines exactly what a release element is for that claim.FN13 The patentee expressed no intent to incorporate Claim 23's "release element" definition into Claim 1, and so the Court finds that a person of ordinary skill in the art would not do so either. The Court's construction of "release element" when inserted into the 551 patent will give Claim 1 its proper scope and will be limited by the clear and express definition found in Claim 23.

FN13. Claim 23 states in relevant part: "the release element is a retainer member surrounding the needle holder and serving to hold the needle holder against the biasing influence of said biasing element acting on the needle holder with the needle extended from the syringe for use." 551 Patent, Col. 18, lns. 35-39.

Moreover, the Court rejects NMT's proposed definition as overly complicated, redundant, and an improper attempt to incorporate limitations from the specification into claim terms. The Court does not give a full written analysis of NMT's numerous arguments but rather notes a passage from RTI's construction brief which aptly sums up NMT's proposed construction: "NMT's construction tries to fold the entirety of both

claims-along with extraneous limitations not found in the claims-into the one term 'release element.' Construction should not import limitations nor be an exercise in redundancy." Pls. Retractable Technologies, Inc. And Thomas J. Shaw's Markman Brief on U.S. Patent No. 5,385,551, p. 26. Although RTI's passage is perhaps overly broad as a general rule, it is correct in this case. A person of ordinary skill in the art simply would not roll all of the limitations NMT proposes into the two words "release element."

Second, the Court finds that a "retainer member" is a "separable part that holds the needle holding member." The ordinary meaning of the term "retainer member" is a "part that holds something." Moreover, neither party disputes that the "retainer member" holds the "needle holding member" and neither party disputes that the retainer member in the 551 patent is a "separable part."

Transition Zone

Finally, the Court adopts RTI's proposed construction of "transition zone" as used in Claims 2 and 24 of the 551 patent. RTI's construction, the "area between the barrel portion and the smaller diameter nose portion of the syringe body," matches the plain meaning of "transition zone" and aptly describes the two "zones" which that area connects.FN14 Indeed, NMT's proposed construction agrees that the "transition zone" is an area between the nose and barrel of the body, NMT simply proposes additional restrictions. Specifically, NMT proposes that a person of ordinary skill in the art reading the term "transition zone" in the 551 Patent would consider it to mean "inwardly laterally constricted portion of the syringe body which separates a front portion of the syringe body." The Court rejects NMT's overlong definition because it improperly reads in limitations from the specification and it improperly imports limitations from one independent claim to another.FN15

FN14. Because of the strong presumption in favor of a term's plain and ordinary meaning, it is unsurprising that the Court's construction of "transition zone" in the 551 Patent closely follows its construction of "transition zone" in the 011 and 077 Patents.

FN15. The Court also finds it telling that NMT's proposed definition of "transition zone" for the 551 Patent is markedly different than its proposed definition of "transition zone" for the 011 and 077 Patents. In fact, NMT's proposed construction for the 011 and 077 Patents, "the portion of the outer body between the barrel portion and the smaller diameter nose portion of the body," closely follows the Court's construction for the 551, 011 and 077 Patents. Although the same terms may have different meanings in different patents, in this case the differences in NMT's proposed constructions between the 551 and 011/077 Patents highlight the fact that NMT's proposed construction for the 551 Patent strays away from the ordinary and plain meaning in favor of restrictions from the intrinsic evidence.

CONCLUSION

For the foregoing reasons, the Court interprets the claim language at issue in this case in the manner set forth above.FN16 The Court has attempted to create simple, concise constructions that correctly define the disputed terms while following the terms' plain and ordinary meaning. It is the Court's belief that such constructions more correctly reflect the understanding of persons skilled in the relevant art and will be more helpful to a jury in determining infringement than overly long, complicated constructions.

FN16. Attached as Appendix A, the Court has compiled a chart including the Court's interpretation of disputed terms.

APPENDIX A

Asserted independent claim 1 of U.S. Patent No. 3,585,551	Court's
	Construction
In a medical device having a retraction mechanism with a needle for injecting or collecting fluid, an elongate hollow body containing a retraction mechanism and a movable member, slidable axially in the body, the retraction mechanism including a needle holding member having an unretracted position wherein the needle is extended from the body while being biased toward a retracted position entirely within the body, a biasing element for applying retraction force to the needle holding member in a retraction direction,	
and a release element capable of holding the needle holding member against the retraction	part that holds
force provided by the biasing element,	and later frees the needle holding member.
the release element being triggered to release the needle holding member for retraction of	part that holds
the needle in response to selective movement of the movable member, the improvement comprising:	and later frees the needle holding member.
the needle holding member and release element are separable members coupled,	part that holds
	and later frees the
	needle holding
	member.
along a sliding interface oriented in the direction of retraction,	a common
	boundary
	between two
	surfaces that can
	move along in
	smooth,
	continuous
	contact.
with a friction force which exceeds the retraction force;	clear on its face
retraction is initiated by relative sliding movement	clear on its face
between the needle holding member and the release element, caused by selective	part that holds
movement of said movable member; and	and later frees the
	needle holding
	member.
retraction occurs by reduction of the extent of said sliding interface	a common
	boundary
	between two
	surfaces that can
	move along in
	smooth,

		ntinuous ntact.
in response to said relative sliding movement,	cle	ear on its face
until retraction force exceeds said friction force,	cle	ear on its face
whereby said needle holding member separates from said release elements into said retracted position.	ent and moves pa ar th ho	rt that holds d later frees e needle lding member.
Asserted dependent claim 2 of U.S. Patent No. 3,585,551	Court's Construction	
The medical device of claim 1 characterized in that said elongate hollow body has a hollow first end portion separated by a transition zone from a hollow second end portion	area between the barr the smaller diameter the syringe body	el portion and nose portion of
wherein substantially all of the retraction mechanism is located within said first end portion of the body below the transition zone.	area between the barn the smaller diameter the syringe body	el portion and nose portion of
Asserted independent claim 23 of U.S. Patent No. 5,385,551		Court's Construction
In a nonreusable syringe for dispensing fluid medication, a hollow syring front portion for receiving a needle assembly and a rear portion for rece plunger disposed partially within the syringe body, having a head and sliding sealed contact with the interior of the syringe body and defining chamber below the piston, the needle assembly having a needle holder within said front portion having a needle fixed therein, with one end of communication with said chamber and extending from the syringe body biasing element which acts to bias the needle holder inwardly of the fro syringe body,	inge body having a eiving a plunger, a with a piston means in g a variable fluid releasably mounted f the needle in fluid y in use position, a ont portion of the	
and a release element which can selectively release the needle holder to needle within the syringe body in response to the action of the biasing improvement comprising:	o allow retraction of the element, the	hepart that holds and later frees the needle holding member.
the release element is		part that holds and later frees the needle holding member.
a retainer member surrounding the needle holder and serving to hold the the biasing influence of said biasing element acting on the needle holde extended from the syringe for use: [sic]	ne needle holder agains er with the needle	st separable part that holds the needle holding member
said retainer member and the needle holder are		separable part that holds the needle

		holding
		member
assembled with a sliding interface between them;		a common
		boundary
		between two
		surfaces that
		can move
		along in
		smooth,
		continuous
		contact.
the needle holder is selectively released by gradual reduction of the slidin	ng interface	a common
		boundary
		between two
		surfaces that
		can move
		along in
		smooth,
		continuous
		contact.
caused by sliding axial movement of the retainer member relative to the	stationary needle	sliding
holder in response to depression of the plunger.	-	movement of
		the retainer
		member
		along the
		syringe axis
Asserted dependent claim 24 of U.S. Patent No. 3,585,551	Court's Constructio	n
The nonreusable syringe of claim 23 characterized in that the syringe	area between the ba	arrel portion
body is defined by an elongated wall having a transition zone which	and the smaller dia	meter nose
ates said front portion from said rear portion, portion of the syringe		ge body
said combined needle holder and retainer member slidingly sealing said	separable part that l	holds the needle
front portion from said rear portion	holding member	
below said transition zone,	area between the barrel portion	
	and the smaller dia	meter nose
	portion of the syrin	ge body
in a manner that prevents fluid introduced above the transition zone	area between the ba	arrel portion
from contacting the biasing element.	and the smaller dia	meter nose
	portion of the syrin	ge body
Asserted independent claim 22 of U.S. Patent No. 5,578,011	Court's Constr	uction
A tamperproof retractable syringe structure for injecting fluid into a patie	ent	
comprising:		
a syringe body having a wall forming an elongated barrel portion	hollow outer st	tructure that
	houses the syri	inge's
	components	
with a smaller nose portion in front	section of the	syringe body
	that has a redu	ced diameter

	relative to the barrel portion
	of the body
and a transition zone between the barrel portion	portion of the outer body
	between the barrel portion
	and the smaller diameter nose
	portion of the body.
and the nose portion;	a section of the syringe body
	that has a reduced diameter
	relative to the barrel portion
	of the body
a moveable plunger in the barrel portion having a front end and a back end,	
the plunger having a head at the front end in sliding sealed contact with the	
interior of the barrel, a cap at the back end for applying thumb force to the	
plunger, and a cavity for receiving retractable parts;	
a retraction mechanism	device which draws back in
	comprising, at least, a needle
	holder and biasing element
disposed in the nose portion	a section of the syringe body
	that has a reduced diameter
	relative to the barrel portion
	of the body
of the syringe body having retractable parts comprising	see "body" above
a releasable needle holder and needle frictionally held by the wall of the	a releasable needle holder and
syringe body	needle kept in the nose
	portion by friction with the
	syringe body
with the needle extended from the nose portion,	a section of the syringe body
	that has a reduced diameter
	relative to the barrel portion
	of the body
a biasing element applying a retraction force to the needle holder and a fluid	
path traversing the needle and needle holder;	
the head of the plunger having an opening into said cavity, sized to receive	member that seals or closes
the retractable parts and a releasable stopper extending from said opening,	one end of the plunger and
	can be freed such that it no
	longer seals or closes
the stopper sealing the interior of the plunger from injection fluid stored in a	same as "releasable stopper"
variable chamber	
defined in the barrel between the retraction mechanism and the head of the	device which draws back in
plunger;	comprising, at least, a needle
	holder and biasing element
the plunger being depressible to a first position to expel injection fluid from	see claim language
the variable chamber through the fluid path in response to thumb pressure on	
said cap,	
said first position comprising the end of an injection;	see claim language
said plunger being further depressible to a retraction position	see claim language

beyond the first position	see claim la	nguage
whereby said stopper	same as "releasable stopper"	
is dislodged	to be moved	d from a settled
	position	
and said releasable needle holder is released from the syringe body and	hollow oute	r structure that
retracted into the cavity of the plunger a distance sufficient to withdraw said	houses the s	syringe's
needle entirely within the syringe body;	components	
said plunger being a length selected to remain graspable behind the barrel portion of the syringe body	see "body"	above
in the first position of the plunger	see claim la	nguage
and become ungraspable by withdrawal of the periphery of the cap within the	see "body"	above
syringe body		
in the second position of the plunger so that the retracted syringe cannot be tampered with.	see claim la	inguage
Asserted independent claim 10 of U.S. Patent No. 6,090,077		Court's
		Construction
A syringe plunger handle assembly and syringe barrel combination for use in	a retractable	
syringe for injecting fluids, comprising:		
a hollow syringe body having an elongated tubular wall comprising an elonga	ted barrel	hollow outer
portion having an open back end;		structure that
		houses the
		syringe's
		components
an elongated plunger disposed for reciprocation in sliding sealed contact with	the barrel	see "body" above
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion	the barrel in front, a	see "body" above
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retract	the barrel in front, a ction cavity	see "body" above
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retract located between the head portion and thumb cap;	the barrel in front, a ction cavity	see "body" above
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retract located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with	the barrel in front, a ction cavity the open	see "body" above
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retract located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with back end of the plunger barrel when the plunger is nearly fully depressed; and the alwager having a wort in fluid comparisotion with the attraction carrying the second se	the barrel in front, a ction cavity the open	see "body" above
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retract located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with back end of the plunger barrel when the plunger is nearly fully depressed; and the plunger having a vent in fluid communication with the retraction cavity, to signature the retraction cavity.	the barrel in front, a ction cavity the open o allow	see "body" above opportunity or
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retract located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with back end of the plunger barrel when the plunger is nearly fully depressed; and the plunger having a vent in fluid communication with the retraction cavity, to airflow from the retraction cavity.	the barrel in front, a ction cavity the open	see "body" above opportunity or means of escape,
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retract located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with back end of the plunger barrel when the plunger is nearly fully depressed; and the plunger having a vent in fluid communication with the retraction cavity, to airflow from the retraction cavity.	the barrel in front, a ction cavity the open o allow	see "body" above opportunity or means of escape, passage, or release
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retract located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with back end of the plunger barrel when the plunger is nearly fully depressed; and the plunger having a vent in fluid communication with the retraction cavity, to airflow from the retraction cavity.	the barrel in front, a ction cavity the open o allow	see "body" above opportunity or means of escape, passage, or release
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retract located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with back end of the plunger barrel when the plunger is nearly fully depressed; and the plunger having a vent in fluid communication with the retraction cavity, to airflow from the retraction cavity.	the barrel in front, a ction cavity the open o allow Court's Co	see "body" above opportunity or means of escape, passage, or release onstruction v or means of
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retract located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with back end of the plunger barrel when the plunger is nearly fully depressed; and the plunger having a vent in fluid communication with the retraction cavity, to airflow from the retraction cavity. Asserted dependent claim 11 of U.S. Patent No. 6,090,077 The combination of claim 10 wherein the vent in fluid communication with the retraction cavity is located at the rear end portion of the plunger	the barrel in front, a ction cavity the open o allow Court's Co opportunit escape, pa	see "body" above opportunity or means of escape, passage, or release onstruction y or means of ssage, or release
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retract located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with back end of the plunger barrel when the plunger is nearly fully depressed; and the plunger having a vent in fluid communication with the retraction cavity, to airflow from the retraction cavity. Asserted dependent claim 11 of U.S. Patent No. 6,090,077 The combination of claim 10 wherein the vent in fluid communication with the retraction cavity is located at the rear end portion of the plunger. Asserted dependent claim 12 of U.S. Patent No. 6,090,077	the barrel in front, a ction cavity the open o allow Court's Co opportunit escape, pa	see "body" above opportunity or means of escape, passage, or release onstruction y or means of ssage, or release
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retrace located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with back end of the plunger barrel when the plunger is nearly fully depressed; and the plunger having a vent in fluid communication with the retraction cavity, to airflow from the retraction cavity. Asserted dependent claim 11 of U.S. Patent No. 6,090,077 The combination of claim 10 wherein the vent in fluid communication with the retraction cavity is located at the rear end portion of the plunger. Asserted dependent claim 12 of U.S. Patent No. 6,090,077 The combination of claim 11 wherein said vent is an opening opportunity	the barrel in front, a ction cavity the open o allow Court's Co opportunit escape, pa istruction	see "body" above opportunity or means of escape, passage, or release onstruction y or means of ssage, or release
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retract located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with back end of the plunger barrel when the plunger is nearly fully depressed; and the plunger having a vent in fluid communication with the retraction cavity, to airflow from the retraction cavity. Asserted dependent claim 11 of U.S. Patent No. 6,090,077 The combination of claim 10 wherein the vent in fluid communication with the retraction cavity is located at the rear end portion of the plunger. Asserted dependent claim 12 of U.S. Patent No. 6,090,077 The combination of claim 11 wherein said vent is an opening opportunity in the wall of the plunger	the barrel in front, a ction cavity the open o allow Court's Co opportunit escape, pa struction or means of release	see "body" above opportunity or means of escape, passage, or release onstruction y or means of ssage, or release f escape,
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retract located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with back end of the plunger barrel when the plunger is nearly fully depressed; and the plunger having a vent in fluid communication with the retraction cavity, to airflow from the retraction cavity. Asserted dependent claim 11 of U.S. Patent No. 6,090,077 The combination of claim 10 wherein the vent in fluid communication with the retraction cavity is located at the rear end portion of the plunger. Asserted dependent claim 12 of U.S. Patent No. 6,090,077 The combination of claim 11 wherein said vent is an opening in the wall of the plunger. Asserted independent claim 25 of U.S. Patent No. 6,090,077	the barrel in front, a ction cavity the open o allow Court's Co opportunit escape, pa istruction or means of release Court's Co	see "body" above opportunity or means of escape, passage, or release onstruction y or means of ssage, or release f escape,
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retract located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with back end of the plunger barrel when the plunger is nearly fully depressed; and the plunger having a vent in fluid communication with the retraction cavity, to airflow from the retraction cavity. Asserted dependent claim 11 of U.S. Patent No. 6,090,077 The combination of claim 10 wherein the vent in fluid communication with the retraction cavity is located at the rear end portion of the plunger. Asserted dependent claim 12 of U.S. Patent No. 6,090,077 Court's Con The combination of claim 11 wherein said vent is an opening in the wall of the plunger. Asserted independent claim 25 of U.S. Patent No. 6,090,077 A tamperproof retractable syringe structure designed for one use, comprising:	the barrel in front, a ction cavity the open o allow Court's Co opportunit escape, pa struction or means or release Court's Co	see "body" above opportunity or means of escape, passage, or release onstruction y or means of ssage, or release f escape, nstruction
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retrace located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with back end of the plunger barrel when the plunger is nearly fully depressed; and the plunger having a vent in fluid communication with the retraction cavity, to airflow from the retraction cavity. Asserted dependent claim 11 of U.S. Patent No. 6,090,077 The combination of claim 10 wherein the vent in fluid communication with the retraction cavity is located at the rear end portion of the plunger. Asserted dependent claim 12 of U.S. Patent No. 6,090,077 The combination of claim 11 wherein said vent is an opening opportunity in the wall of the plunger. Asserted independent claim 25 of U.S. Patent No. 6,090,077 A tamperproof retractable syringe structure designed for one use, comprising: a hollow syringe body comprising a syringe barrel having an open back end	the barrel in front, a ction cavity the open o allow Court's Co opportunit escape, pa istruction or means of release Court's Co	see "body" above opportunity or means of escape, passage, or release instruction y or means of ssage, or release f escape, nstruction
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retrace located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with back end of the plunger barrel when the plunger is nearly fully depressed; and the plunger having a vent in fluid communication with the retraction cavity, to airflow from the retraction cavity. Asserted dependent claim 11 of U.S. Patent No. 6,090,077 The combination of claim 10 wherein the vent in fluid communication with the retraction cavity is located at the rear end portion of the plunger. Asserted dependent claim 12 of U.S. Patent No. 6,090,077 Court's Con The combination of claim 11 wherein said vent is an opening in the wall of the plunger. Asserted independent claim 25 of U.S. Patent No. 6,090,077 A tamperproof retractable syringe structure designed for one use, comprising: a hollow syringe body comprising a syringe barrel having an open back end, the barrel having a front end portion	the barrel in front, a ction cavity the open o allow Court's Co opportunit escape, pa struction or means of release Court's Co see "body" section of	see "body" above opportunity or means of escape, passage, or release onstruction y or means of ssage, or release f escape, nstruction above the syringe at the
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retract located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with back end of the plunger barrel when the plunger is nearly fully depressed; and the plunger having a vent in fluid communication with the retraction cavity, to airflow from the retraction cavity. Asserted dependent claim 11 of U.S. Patent No. 6,090,077 The combination of claim 10 wherein the vent in fluid communication with the retraction cavity is located at the rear end portion of the plunger. Asserted dependent claim 12 of U.S. Patent No. 6,090,077 The combination of claim 11 wherein said vent is an opening opportunity in the wall of the plunger. Asserted independent claim 25 of U.S. Patent No. 6,090,077 A tamperproof retractable syringe structure designed for one use, comprising: a hollow syringe body comprising a syringe barrel having an open back end, the barrel having a front end portion	the barrel in front, a ction cavity the open o allow Court's Co opportunit escape, pa istruction or means of release Court's Co see "body" section of injection en	see "body" above opportunity or means of escape, passage, or release mstruction y or means of ssage, or release f escape, f escape, nstruction above the syringe at the nd
an elongated plunger disposed for reciprocation in sliding sealed contact with portion of the body, the plunger having a tubular wall defining a head portion back end portion carrying a thumb cap and hollow interior comprising a retract located between the head portion and thumb cap; the thumb cap having an outer side adapted to reside in close association with back end of the plunger barrel when the plunger is nearly fully depressed; and the plunger having a vent in fluid communication with the retraction cavity, to airflow from the retraction cavity. Asserted dependent claim 11 of U.S. Patent No. 6,090,077 The combination of claim 10 wherein the vent in fluid communication with the retraction cavity is located at the rear end portion of the plunger. Asserted dependent claim 12 of U.S. Patent No. 6,090,077 The combination of claim 11 wherein said vent is an opening opportunity in the wall of the plunger. Asserted independent claim 25 of U.S. Patent No. 6,090,077 A tamperproof retractable syringe structure designed for one use, comprising: a hollow syringe body comprising a syringe barrel having an open back end, the barrel having a front end portion containing a retraction mechanism configured for operation by a plunger:	the barrel in front, a ction cavity the open o allow Court's Co opportunit escape, pa struction or means or release Court's Co see "body" section of injection er device whi	see "body" above opportunity or means of escape, passage, or release onstruction y or means of ssage, or release f escape, nstruction above the syringe at the nd ch draws back in

	holder and a bia	asing element
a plunger reciprocatably mounted in sliding sealed contact with the barrel, the	portion of the p	lunger closer
plunger having a thumb cap at its back end for working the plunger relative to	to the injection	end of the
the barrel and a front end configured to operate the retraction mechanism;	syringe that ope	erates the
	retraction mech	anism
the plunger having a tactile first position felt by a user pressing the thumb cap	see claim langu	age
at the end of free travel of the plunger in the barrel when the plunger is moved		
forward to a stop,		
the plunger having a length relative to the length of the barrel whereby in the	see claim langu	age
tactile first position of the plunger a portion of the plunger and the thumb cap		
extend behind the barrel for grasping in order to draw fluid into the barrel by		
partially withdrawing the plunger from the barrel;		
the plunger having a retraction position obtained by pressing the thumb cap to	see claim langu	age
move the plunger forward	_	-
beyond the tactile first position	see claim langu	age
and thereby operating the retraction mechanism and simultaneously lodging	device which di	raws back in
the thumb cap in the open back end of the barrel thereby rendering the	comprising, at 1	east, a needle
thumb cap inaccessible for grasping.	holder and bias	ing element
Asserted dependent claim 26 of U.S. Patent No. 6.090.077		Court's
		Construction
The tamperproof retractable syringe of claim 25 wherein the thumb cap has a r	peripherv	
slightly smaller than an opening at the back end of the barrel to frustrate effort	s to remove	
the plunger from the barrel.		
Asserted dependent claim 27 of U.S. Patent No. 6.090.077		Court's
1		Constructior
The tamperproof retractable syringe of claim 26 wherein the back end of the back	arrel does not	see claim
resist entry of the thumb cap when the plunger is moved forward to the retracti	on position.	language
Asserted dependent claim 28 of U.S. Patent No. 6 090 077	<u></u>	Court's
		Construction
The tamperproof retractable syringe of claim 27 wherein entry of the thumb ca	n into the	construction
opening at the back end of the barrel is not accompanied by locking of the plu	over in the	
barrel	iger in the	
Asserted dependent claim 30 of U.S. Patent No. 6 090 077		Court's
		Construction
The temperature of retractable surings of claim 26 wherein the opening at the bac	k and of the	construction
barrel is adapted to receive the thumb can freely without adding another compo	nent of	language
retraction triggering force to overcome as the plunger is moved forward from t	he tootile first	language
position	le tactile fifst	
to the retrection position		soo alaim
to the retraction position.		longuago
Asserted demondent cloim 21 of U.S. Detert No. 6 000 077		Countin
Asserted dependent claim 51 of U.S. Patent No. 0,090,077		Court's
	1 1 0 1	Construction
The tamperproof retractable syringe of claim 26 wherein the opening at the bac barrel is configured as a stop which contacts the thumb cap after the thumb cap	ck end of the o enters the	Construction

opening to prevent further forward movement of the plunger. Asserted dependent claim 32 of U.S. Patent No. 6,090,077 The tamperproof retractable syringe of claim 31 wherein the back end of the barrel is radially enlarged relative to the barrel with a correspondingly larger opening at the back of the barrel and a correspondingly larger close fitting thumb cap than a syringe without said enlargement.

Asserted dependent claim 33 of U.S. Patent No. 6,090,0	77		Court's
			Construction
The tamperproof retractable syringe of claim 25 wherein the front end of the plunger has a			see claim
closure which acts as the stop for the plunger when the	plunger is moved forv	vard to the	language
tactile first position.			
Asserted dependent claim 35 of U.S. Patent No. 6,090,0	77		Court's
			Construction
The tamperproof retractable syringe of claim 30 wherein	n the front end of the	plunger has a	see claim
closure which acts as the stop for the plunger when the	plunger is moved forw	vard to the	language
tactile first position.			
Asserted dependent claim 36 of U.S. Patent No. 6,090,0	77 Cour	t's Construction	
The tamperproof retractable syringe of claim 35 wherein	n the device	ce which draws b	ack in
retraction mechanism comprises a needle holder held in	an comp	prising, at least, a	needle holder
unretracted position by a removable ring member.	and l	biasing element	
Asserted dependent claim 37 of U.S. Patent No. 6,090,0	77		Court's
			Construction
The tamperproof retractable syringe of claim 36 wherein	n the ring member is 1	removed from	see claim
the needle holder in response to movement of the plung	er to the retraction po	sition.	language
Asserted dependent claim 38 of U.S. Patent No. 6,090,0	77		Court's
			Construction
The tamperproof retractable syringe of claim 37 wherein	n the front end of the	plunger has a	see claim
closure which acts as the stop for the plunger when the	plunger is moved forv	vard to the	language
tactile first position.	T		
Asserted dependent claim 39 of U.S. Patent No.	Court's Construction		
6,090,077			
The tamperproof retractable syringe of claim 37	section of the syringe	e at the injection e	end
wherein the front end portion of the barrel comprises			
a nose portion of reduced diameter relative to the barrel	,a section of the syrin	ge body that has	a reduced
	diameter relative to the	ne barrel portion	of the body
the nose portion principally containing	a section of the syrin	ge body that has	a reduced
	diameter relative to the	ne barrel portion	of the body
the retraction mechanism.	see claim language		
Asserted independent claim 41 of U.S. Patent No. 6,090	,077	Court's Cons	truction
A tamperproof retractable syringe structure designed for	r one use, comprising:		
a hollow syringe body having a barrel having an open b	back end	see "body" a	bove
and a nose portion in the front of the barrel;		a section of t	the syringe
		body that has	s a reduced
		diameter rela	tive to the
		barrel portion	n of the body
a plunger operated retraction mechanism		device which	draws back
		in comprising	g, at least, a

elementlodged in the nose portion of the barrel;a section of the syringe body that has a reduced diameter relative to the barrel portion of the bodyan elongated plunger handle disposed for reciprocation in the barrel, the plunger handle having a front portion slidingly sealing the barrel to form a variable fluid in comprising, at least, a needle holder and a biasing elementadiameter slightly less than the diameter of the open back end; the plunger forward until it stopsbiasing elementwithout operating the retraction mechanism, leaving a portion of the plunger handle and the thumb cap positioned a sufficient distance behind the barrel for gripping to partially withdraw the plunger when filling the syringe with fluid; the plunger forward to a retraction position see claim languagedevice which draws back in comprising, at least, a needle holder and biasing elementthe plunger having a second positionsee claim language see claim languagedevice which draws back in comprising, at least, a needle holder and biasing elementthe plunger having a second positionsee claim languagesee claim languageobtained by returning the plunger to the first pre-injection position to substantially empty the syringe then moving the plunger forward to a retraction positionsee claim languagebeyond the tactile first pre-injection position thumb cap within the open back end of the barrel where it becomes inaccessible.see claim languagebeyond the tactile first pre-injection position thumb cap within the open back end of the barrel where it becomessee claim languagebeyond the tactile first pre-injection position thumb cap within the open back end of the barrel where		needle holder and biasing
lodged in the nose portion of the barrel;a section of the syringe body that has a reduced diameter relative to the barrel portion of the bodyan elongated plunger handle disposed for reciprocation in the barrel, the plunger handle having a front portion slidingly sealing the barrel to form a variable fluid in comprising, at least, a needle holder and a biasing elementan elongated plunger having a tactile first pre-injection position which is felt by moving the plunger forward until it stopsdevice which draws back in comprising, at least, a biasing elementwithout operating the retraction mechanism, leaving a portion of the plunger forward until it stopsdevice which draws back in comprising, at least, a needle holder and biasing elementwithout operating the retraction mechanism, leaving a portion of the plunger forward until it stopsdevice which draws back in comprising, at least, a needle holder and biasing elementthe plunger having a second positionsee claim languagebeyond the tactile first pre-injection position to substantially empty the syringesee claim languagethereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomessee claim languagedevice which draws back in comprising, at least, a needle holder and biasing elementsee claim language		element
body that has a reduced diameter relative to the barrel portion of the body an elongated plunger handle disposed for reciprocation in the barrel, the plunger handle having a front portion slidingly sealing the barrel to form a variable fluid in comprising, at least, a chamber above the retraction mechanism, the plunger having a thumb cap with a diameter slightly less than the diameter of the open back end; the plunger forward until it stops without operating the retraction mechanism, leaving a portion of the plunger handle and the thumb cap positioned a sufficient distance behind the barrel for gripping to partially withdraw the plunger when filling the syringe with fluid; the plunger having a second position bustantially empty the syringe then moving the plunger forward to a retraction position thereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomes inaccessible	lodged in the nose portion of the barrel;	a section of the syringe
diameter relative to the barrel portion of the body an elongated plunger handle disposed for reciprocation in the barrel, the plunger handle having a front portion slidingly sealing the barrel to form a variable fluid chamber above the retraction mechanism, the plunger having a thumb cap with a diameter slightly less than the diameter of the open back end; the plunger having a tactile first pre-injection position which is felt by moving the plunger forward until it stops without operating the retraction mechanism, leaving a portion of the plunger handle and the thumb cap positioned a sufficient distance behind the barrel for gripping to partially withdraw the plunger when filling the syringe with fluid; the plunger having a second position the plunger having a second position beyond the tactile first pre-injection position thereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomes inaccessible		body that has a reduced
barrel portion of the bodyan elongated plunger handle disposed for reciprocation in the barrel, the plunger handle having a front portion slidingly sealing the barrel to form a variable fluid in comprising, at least, a needle holder and a biasing elementdiameter slightly less than the diameter of the open back end; the plunger having a tactile first pre-injection position which is felt by moving the plunger forward until it stopssee claim languagewithout operating the retraction mechanism, leaving a portion of the plunger forward until it stopsdevice which draws back in comprising, at least, a needle holder and biasing elementthe plunger forward until it stopsdevice which draws back in comprising, at least, a needle holder and biasing elementthe plunger having a second positionsee claim languageobtained by returning the plunger to the first pre-injection position to substantially empty the syringesee claim languagethen moving the plunger forward to a retraction position beyond the tactile first pre-injection positionsee claim languagebeyond the tactile first pre-injection position thereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomesdevice which draws back in comprising, at least, a needle holder and biasing element		diameter relative to the
an elongated plunger handle disposed for reciprocation in the barrel, the plunger handle having a front portion slidingly sealing the barrel to form a variable fluid chamber above the retraction mechanism, the plunger having a thumb cap with a diameter slightly less than the diameter of the open back end; the plunger having a tactile first pre-injection position which is felt by moving the plunger forward until it stops without operating the retraction mechanism, leaving a portion of the plunger handle and the thumb cap positioned a sufficient distance behind the barrel for gripping to partially withdraw the plunger when filling the syringe with fluid; the plunger having a second position obtained by returning the plunger to the first pre-injection position to substantially empty the syringe then moving the plunger forward to a retraction position beyond the tactile first pre-injection position thereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomes inaccessible.		barrel portion of the body
handle having a front portion slidingly sealing the barrel to form a variable fluid chamber above the retraction mechanism, the plunger having a thumb cap with a diameter slightly less than the diameter of the open back end;in comprising, at least, a needle holder and a biasing elementthe plunger having a tactile first pre-injection position which is felt by moving the plunger forward until it stopssee claim languagewithout operating the retraction mechanism, leaving a portion of the plunger handle and the thumb cap positioned a sufficient distance behind the barrel for gripping to partially withdraw the plunger when filling the syringe with fluid;device which draws back in comprising, at least, a needle holder and biasing elementthe plunger having a second position obtained by returning the plunger to the first pre-injection position to substantially empty the syringesee claim languagethereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomessee claim languagedevice which draws back in comprising, at least, a needle holder and biasing elementsee claim language	an elongated plunger handle disposed for reciprocation in the barrel, the plunger	device which draws back
chamber above the retraction mechanism, the plunger having a thumb cap with a diameter slightly less than the diameter of the open back end;needle holder and a biasing elementdiameter slightly less than the diameter of the open back end;biasing elementthe plunger having a tactile first pre-injection position which is felt by moving the plunger forward until it stopssee claim languagewithout operating the retraction mechanism, leaving a portion of the plunger andle and the thumb cap positioned a sufficient distance behind the barrel for gripping to partially withdraw the plunger when filling the syringe with fluid;device which draws back in comprising, at least, a needle holder and biasing elementthe plunger having a second positionsee claim languageobtained by returning the plunger to the first pre-injection position to substantially empty the syringesee claim languagethen moving the plunger forward to a retraction positionsee claim languagebeyond the tactile first pre-injection positionsee claim languagebeyond the tactile first pre-injection positionsee claim languagethereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomesdevice which draws back in comprising, at least, a needle holder and biasing	handle having a front portion slidingly sealing the barrel to form a variable fluid	in comprising, at least, a
diameter slightly less than the diameter of the open back end;biasing elementthe plunger having a tactile first pre-injection position which is felt by moving the plunger forward until it stopssee claim languagewithout operating the retraction mechanism, leaving a portion of the plunger handle and the thumb cap positioned a sufficient distance behind the barrel for gripping to partially withdraw the plunger when filling the syringe with fluid;device which draws back 	chamber above the retraction mechanism, the plunger having a thumb cap with a	needle holder and a
the plunger having a tactile first pre-injection position which is felt by moving the plunger forward until it stopssee claim languagewithout operating the retraction mechanism, leaving a portion of the plunger handle and the thumb cap positioned a sufficient distance behind the barrel for gripping to partially withdraw the plunger when filling the syringe with fluid;see claim language needle holder and biasing elementthe plunger having a second position obtained by returning the plunger to the first pre-injection position to substantially empty the syringesee claim languagethen moving the plunger forward to a retraction position thereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomessee claim language device which draws back in comprising, at least, a needle holder and biasing element	diameter slightly less than the diameter of the open back end;	biasing element
the plunger forward until it stopsdevice which draws back in comprising, at least, a needle holder and biasing elementwithout operating the retraction mechanism, leaving a portion of the plunger gripping to partially withdraw the plunger when filling the syringe with fluid;device which draws back in comprising, at least, a needle holder and biasing elementthe plunger having a second positionsee claim languageobtained by returning the plunger to the first pre-injection position to substantially empty the syringesee claim languagethen moving the plunger forward to a retraction position beyond the tactile first pre-injection position thereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomesdevice which draws back in comprising, at least, a needle holder and biasing element	the plunger having a tactile first pre-injection position which is felt by moving	see claim language
without operating the retraction mechanism, leaving a portion of the plunger handle and the thumb cap positioned a sufficient distance behind the barrel for gripping to partially withdraw the plunger when filling the syringe with fluid;device which draws back in comprising, at least, a needle holder and biasing elementthe plunger having a second position obtained by returning the plunger to the first pre-injection position to substantially empty the syringesee claim languagethen moving the plunger forward to a retraction position beyond the tactile first pre-injection position thereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomessee claim language device which draws back in comprising, at least, a needle holder and biasing element	the plunger forward until it stops	
handle and the thumb cap positioned a sufficient distance behind the barrel for gripping to partially withdraw the plunger when filling the syringe with fluid;in comprising, at least, a needle holder and biasing elementthe plunger having a second positionsee claim languageobtained by returning the plunger to the first pre-injection position to substantially empty the syringesee claim languagethen moving the plunger forward to a retraction position beyond the tactile first pre-injection positionsee claim languagethereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomesdevice which draws back in comprising, at least, a needle holder and biasing	without operating the retraction mechanism, leaving a portion of the plunger	device which draws back
gripping to partially withdraw the plunger when filling the syringe with fluid;needle holder and biasing elementthe plunger having a second positionsee claim languageobtained by returning the plunger to the first pre-injection position tosee claim languagesubstantially empty the syringesee claim languagethen moving the plunger forward to a retraction positionsee claim languagebeyond the tactile first pre-injection positionsee claim languagethereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomesdevice which draws back in comprising, at least, a needle holder and biasing	handle and the thumb cap positioned a sufficient distance behind the barrel for	in comprising, at least, a
elementthe plunger having a second positionsee claim languageobtained by returning the plunger to the first pre-injection position tosee claim languagesubstantially empty the syringesee claim languagethen moving the plunger forward to a retraction positionsee claim languagebeyond the tactile first pre-injection positionsee claim languagethereby operating the retraction mechanism and simultaneously lodging thedevice which draws backthumb cap within the open back end of the barrel where it becomesneedle holder and biasing	gripping to partially withdraw the plunger when filling the syringe with fluid;	needle holder and biasing
the plunger having a second positionsee claim languageobtained by returning the plunger to the first pre-injection position tosee claim languagesubstantially empty the syringesee claim languagethen moving the plunger forward to a retraction positionsee claim languagebeyond the tactile first pre-injection positionsee claim languagethereby operating the retraction mechanism and simultaneously lodging thedevice which draws backthumb cap within the open back end of the barrel where it becomesneedle holder and biasing		element
obtained by returning the plunger to the first pre-injection position to substantially empty the syringesee claim languagethen moving the plunger forward to a retraction position beyond the tactile first pre-injection positionsee claim languagethereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomesdevice which draws back in comprising, at least, a needle holder and biasing	the plunger having a second position	see claim language
substantially empty the syringesee claim languagethen moving the plunger forward to a retraction positionsee claim languagebeyond the tactile first pre-injection positionsee claim languagethereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomesdevice which draws back in comprising, at least, a needle holder and biasing	obtained by returning the plunger to the first pre-injection position to	see claim language
then moving the plunger forward to a retraction positionsee claim languagebeyond the tactile first pre-injection positionsee claim languagethereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomesdevice which draws back in comprising, at least, a needle holder and biasing	substantially empty the syringe	
beyond the tactile first pre-injection positionsee claim languagethereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomesdevice which draws back in comprising, at least, a needle holder and biasing	then moving the plunger forward to a retraction position	see claim language
thereby operating the retraction mechanism and simultaneously lodging the thumb cap within the open back end of the barrel where it becomes inaccessible device which draws back in comprising, at least, a needle holder and biasing	beyond the tactile first pre-injection position	see claim language
thumb cap within the open back end of the barrel where it becomes in comprising, at least, a needle holder and biasing	thereby operating the retraction mechanism and simultaneously lodging the	device which draws back
inaccessible needle holder and biasing	thumb cap within the open back end of the barrel where it becomes	in comprising, at least, a
	inaccessible.	needle holder and biasing
element		element

E.D.Tex.,2004. Retractable Technologies v. New Medical Technologies

Produced by Sans Paper, LLC.