



KeyCite Yellow Flag - Negative Treatment

Declined to Extend by [Drone Technologies, Inc. v. Parrot S.A.](#), Fed.Cir. (Pa.), September 29, 2016

135 F.3d 1456

United States Court of Appeals,
Federal Circuit.ETHICON, INC. and InBae Yoon,
M.D., Plaintiffs–Appellants,
v.UNITED STATES SURGICAL CORPORATION
and Young Jae Choi, Defendants–Appellees.

No. 97–1269.

|
Feb. 3, 1998.|
Rehearing Denied; Suggestion for
Rehearing In Banc Declined April 1, 1998.**Synopsis**

Patentee and his exclusive licensee brought action alleging infringement of patent for surgical trocar. Alleged coinventor intervened. After alleged infringer's motion to correct inventorship by adding intervenor as coinventor was granted, the United States District Court for the District of Connecticut, [Chatigny, J.](#), 954 F.Supp. 51, dismissed action, and plaintiffs appealed. The Court of Appeals, [Rader](#), Circuit Judge, held that: (1) intervenor was coinventor as to two patent claims; (2) corroborating evidence was sufficient to establish joint inventorship; (3) coinventor's testimony was admissible despite alleged bias; (4) coinventor licensed all of his rights as joint owner to alleged infringer; (5) coinventor could not release alleged infringer from liability for past accrued damages to plaintiff licensee; but (6) coinventor's refusal to join as plaintiff required dismissal of suit.

Affirmed.

[Pauline Newman](#), Circuit Judge, filed dissenting opinion.

West Headnotes (28)

[1] Patents [Presumption of correctness in general](#)

Patent issuance creates presumption that named inventors are true and only inventors.

[50 Cases that cite this headnote](#)**[2] Patents** [Scope, Standard, and Extent of Review](#)

Inventorship of patented subject matter is question of law, which Court of Appeals reviews without deference, although Court reviews underlying findings of fact which uphold district court's inventorship determination for clear error.

[16 Cases that cite this headnote](#)**[3] Patents** [Joint Inventors](#)

Because conception is touchstone of inventorship, for purpose of patent application, each joint inventor must generally contribute to conception of invention. 35 U.S.C.A. § 116.

[63 Cases that cite this headnote](#)**[4] Patents** [Conception of invention](#)

Conception of invention claimed in patent application is formation in mind of inventor, of definite and permanent idea of complete and operative invention, as it is to be applied in practice, and idea is sufficiently definite and permanent when only ordinary skill would be necessary to reduce invention to practice, without extensive research or experimentation.

[54 Cases that cite this headnote](#)**[5] Patents** [Joint Inventors](#)

For conception of joint invention, each of joint inventors need not make same type or amount of contribution to invention; rather, each needs to perform only part of task which produces invention, although one does not qualify as joint inventor by merely assisting

actual inventor after conception of claimed invention. 35 U.S.C.A. § 116.

[125 Cases that cite this headnote](#)

[6] Patents

 [Joint Inventors](#)

One who simply provides inventor with well-known principles or explains state of the art without ever having firm and definite idea of claimed combination as a whole does not qualify as joint inventor. 35 U.S.C.A. § 116.

[60 Cases that cite this headnote](#)

[7] Patents

 [Joint Inventors](#)

Depending on scope of patent's claims, one of ordinary skill in the art who simply reduced inventor's idea to practice is not necessarily joint inventor, even if specification discloses that embodiment to satisfy best mode requirement. 35 U.S.C.A. § 116.

[6 Cases that cite this headnote](#)

[8] Patents

 [Joint Inventors](#)

Coinventor need not make contribution to every claim of patent; contribution to one claim is enough. 35 U.S.C.A. § 116.

[15 Cases that cite this headnote](#)

[9] Patents

 [Evidence](#)

To show coinventorship, alleged coinventor or coinventors must prove their contribution to conception of claims by clear and convincing evidence, and inventor's testimony or alleged co-inventor's testimony respecting facts surrounding claim of derivation or priority of invention cannot, standing alone, rise to level of clear and convincing proof. 35 U.S.C.A. § 256.

[34 Cases that cite this headnote](#)

[10] Patents

 [Evidence](#)

Whether alleged inventor's testimony regarding conception of invention has been sufficiently corroborated is evaluated under "rule of reason" analysis, under which evaluation of all pertinent evidence must be made so that sound determination of credibility of alleged inventor's story may be reached.

[79 Cases that cite this headnote](#)

[11] Patents

 [Particular inventions](#)

Alleged coinventor of surgical trocar claimed in patent contributed to conception of claim's subject matter, and thus was properly named as joint inventor, based on evidence that alleged coinventor conceived of locating blunt probe in tool's shaft and allowing it to pass through aperture in blade surface and fact that contribution was included in claim, which required that distal blade surface be perforated along one side by aperture and required shaft to be longitudinally accommodatable within outer sleeve. 35 U.S.C.A. §§ 116, 256.

[1 Cases that cite this headnote](#)

[12] Patents

 [Particular inventions](#)

Alleged coinventor of surgical trocar claimed in patent contributed to conception of claim's subject matter, and thus was properly named as joint inventor, based on evidence that alleged coinventor contributed rod detaining means of triggering retracting spring, although not detent detaining means, as means were alternative structures for satisfying claim's means-plus-function language.

[Cases that cite this headnote](#)

[13] Patents

🔑 **Joint Inventors**

Contributor of any disclosed means of means-plus-function claim element is joint inventor as to that patent claim, unless one asserting sole inventorship can show that contribution of that means was simply reduction to practice of sole inventor's broader concept.

[4 Cases that cite this headnote](#)

[14] Patents

🔑 **Particular inventions**

Sketches drawn by alleged coinventor of claimed surgical tool sufficiently corroborated claim of joint inventorship under “rule of reason,” notwithstanding named inventor's assertion that sketches did not represent alleged coinventor's ideas but instead represented illustrations of information that alleged coinventor learned from named inventor. 35 U.S.C.A. §§ 116, 256.

[7 Cases that cite this headnote](#)

[15] Patents

🔑 **Admissibility**

Admission of testimony of alleged coinventor of patent claims on behalf of alleged infringer in patent infringement action was not abuse of discretion, notwithstanding alleged bias evidenced by license agreement providing that alleged coinventor would receive immediate payment of \$300,000 and future payments contingent on alleged infringer's success in action, that coinventor would grant alleged infringer exclusive license in inventions, and that coinventor agreed to participate in litigation.

[7 Cases that cite this headnote](#)

[16] Federal Courts

🔑 **Scope and Extent of Review**

Court of Appeals for the Federal Circuit reviews matters pertaining to admissibility of evidence under law of particular regional circuit where appeals from district court would normally lie.

[3 Cases that cite this headnote](#)

[17] Witnesses

🔑 **Interest of persons other than parties in general**

Witness's pecuniary interest in outcome of case goes to probative weight of testimony, not its admissibility.

[8 Cases that cite this headnote](#)

[18] Patents

🔑 **Joint Inventors**

In context of joint inventorship, each coinventor presumptively owns pro rata undivided interest in entire patent, no matter what their respective contributions. 35 U.S.C.A. §§ 116, 261, 262.

[9 Cases that cite this headnote](#)

[19] Patents

🔑 **Persons who may grant license**

Joint inventor of some claims in patent for surgical trocar had power to license rights in entire patent, absent contrary agreement between joint inventors. 35 U.S.C.A. § 116.

[12 Cases that cite this headnote](#)

[20] Patents

🔑 **Construction and Operation of Licenses**

Coinventor's agreement to license his “trocar related inventions” to licensee incorporated all trocars described in referenced patent, not just coinventor's contributions to particular patent claims.

[17 Cases that cite this headnote](#)

[21] Contracts

🔑 **Construction as a whole**

Under Connecticut law, court must view single provision of contract in way that gives meaning to, and provides internal harmony among, all parts of contract.

[1 Cases that cite this headnote](#)

[22] Patents

🔑 [Settlement or release of infringement claims](#)

One coinventor of patented surgical trocar could not release alleged patent infringer from liability for past accrued damages to second coinventor, through grant of “retroactive license” to alleged infringer, but could only release alleged infringer from liability to itself and grant prospective license for future.

[1 Cases that cite this headnote](#)

[23] Patents

🔑 [Complainants](#)

Action for patent infringement must join as plaintiffs all co-owners.

[61 Cases that cite this headnote](#)

[24] Patents

🔑 [Complainants](#)

As matter of substantive patent law, all co-owners must ordinarily consent to join as plaintiffs in infringement suit.

[51 Cases that cite this headnote](#)

[25] Patents

🔑 [Parties](#)

When any patent owner has granted exclusive license, he stands in relationship of trust to his licensee and must permit licensee to sue in his name.

[3 Cases that cite this headnote](#)

[26] Patents

🔑 [Complainants](#)

If, by agreement, co-owner of patent waives his right to refuse to join suit, his co-owners may subsequently force him to join in suit against infringers.

[44 Cases that cite this headnote](#)

[27] Patents

🔑 [Bifurcation or consolidation](#)

Coinventor's refusal to join as plaintiff in patent infringement suit required dismissal of suit.

[4 Cases that cite this headnote](#)

[28] Patents

🔑 [In general;utility](#)

[US Patent 4,535,773](#). Cited.

[1 Cases that cite this headnote](#)

Attorneys and Law Firms

***1458** [David F. Dobbins](#), Patterson, Belknap, Webb & Tyler, LLP, New York City, argued for plaintiffs–appellants. On brief were [Thomas W. Pippert](#), [Jeffrey I.D. Lewis](#), and [Erik Haas](#). Of counsel was [Eugene M. Gelernter](#).

[Harvey Kurzweil](#), Dewey Ballantine, New York City, argued for defendants–appellees. On brief were [Clark E. Walter](#), [Joseph Angland](#), [Bradford J. Badke](#), and [Lawrence Brocchini](#). Of counsel was [Jacob D. Zeldes](#), Zeldes, Needle & Cooper, Bridgeport, CT. Also of counsel were [Thomas R. Bremer](#) and [Basam E. Nabulsi](#), United States Surgical Corporation, Norwalk, CT.

Before [NEWMAN](#), Circuit Judge, [SKELTON](#), Senior Circuit Judge, and [RADER](#), Circuit Judge.

Opinion

[RADER](#), Circuit Judge.

In this patent infringement action, Dr. InBae Yoon (Yoon) and his exclusive licensee, Ethicon, Inc. (Ethicon), appeal from the judgment of the United States District Court for the District of Connecticut. In 1989, Yoon and Ethicon sued United States Surgical Corporation (U.S. Surgical) for infringement of [U.S. Patent No. 4,535,773 \(the '773 patent\)](#). In 1993, the parties stipulated to the intervention of Mr. Young Jae Choi (Choi) as defendant–

intervenor. Choi claimed to be an omitted co-inventor of the '773 patent and to have granted U.S. Surgical a retroactive license under that patent. *1459 On U.S. Surgical's motion to correct inventorship of the '773 patent under 35 U.S.C. § 256, the district court ruled that Choi was an omitted co-inventor of two claims, *see* 937 F.Supp. 1015 (D.Conn.1996), and subsequently granted U.S. Surgical's motion to dismiss the infringement complaint, *see* 954 F.Supp. 51 (D.Conn.1997). Because the district court's determination of co-inventorship was correct, and because Choi is a joint owner of the '773 patent who has not consented to suit against U.S. Surgical, this court affirms.

I. BACKGROUND

The '773 patent relates to trocars, an essential tool for endoscopic surgery. A trocar is a surgical instrument which makes small incisions in the wall of a body cavity, often the abdomen, to admit endoscopic instruments. Trocars include a shaft within an outer sleeve. One end of the shaft has a sharp blade. At the outset of surgery, the surgeon uses the blade to puncture the wall and extend the trocar into the cavity. The surgeon then removes the shaft, leaving the hollow outer sleeve, through which the surgeon may insert tiny cameras and surgical instruments for the operation.

Conventional trocars, however, pose a risk of damage to internal organs or structures. As the trocar blade punctures the cavity wall, the sudden loss of resistance can cause the blade to lunge forward and injure an internal organ. The '773 patent claims a trocar that alleviates this danger. In one embodiment, the invention equips the trocar with a blunt, spring-loaded rod. As the trocar pierces the cavity wall, the rod automatically springs forward to precede the blade and shield against injury. A second embodiment has a retractable trocar blade that springs back into a protective sheath when it passes through the cavity wall. The patent also teaches the use of an electronic sensor in the end of the blade to signal the surgeon at the moment of puncture.

Yoon is a medical doctor and inventor of numerous patented devices for endoscopic surgery. In the late 1970s, Yoon began to conceive of a safety device to prevent accidental injury during trocar incisions. Yoon also conceived of a device to alert the surgeon when the incision

was complete. In 1980, Yoon met Choi, an electronics technician, who had some college training in physics, chemistry, and electrical engineering, but no college degree. Choi had worked in the research and development of electronic devices. After Choi had demonstrated to Yoon some of the devices he had developed, Yoon asked Choi to work with him on several projects, including one for safety trocars. Choi was not paid for his work.

In 1982, after collaborating for approximately eighteen months, their relationship ended. Choi believed that Yoon found his work unsatisfactory and unlikely to produce any marketable product. For these reasons, Choi withdrew from cooperation with Yoon.

In the same year, however, Yoon filed an application for a patent disclosing various embodiments of a safety trocar. Without informing Choi, Yoon named himself as the sole inventor. In 1985, the Patent and Trademark Office issued the '773 patent to Yoon, with fifty-five claims. Yoon thereafter granted an exclusive license under this patent to Ethicon. Yoon did not inform Choi of the patent application or issuance.

In 1989, Ethicon filed suit against U.S. Surgical for infringement of claims 34 and 50 of the '773 patent. In 1992, while this suit was still pending, U.S. Surgical became aware of Choi, and contacted him regarding his involvement in Yoon's safety trocar project. When Choi confirmed his role in the safety trocar project, U.S. Surgical obtained from Choi a "retroactive license" to practice "Choi's trocar related inventions." Under the license, Choi agreed to assist U.S. Surgical in any suit regarding the '773 patent. For its part, U.S. Surgical agreed to pay Choi contingent on its ultimate ability to continue to practice and market the invention. With the license in hand, U.S. Surgical moved to correct inventorship of the '773 patent under 35 U.S.C. § 256, claiming that Choi was a co-inventor of claims 23, 33, 46, and 47. Following an extensive hearing, the district court granted U.S. Surgical's motion, finding that Choi had contributed to the subject matter of claims 33 and 47.

U.S. Surgical next moved for dismissal of the infringement suit, arguing that Choi, as a joint owner of the patent, had granted it a *1460 valid license under the patent. By its terms, the license purported to grant rights to use the patent extending retroactively back to its issuance.

The district court granted U.S. Surgical's motion and dismissed the suit.

Ethicon appeals the district court's finding of co-inventorship and its dismissal of the complaint. Specifically, Ethicon contends that (1) Choi supplied insufficient corroboration for his testimony of co-invention; (2) Choi presented insufficient evidence to show co-invention of claims 33 and 47 clearly and convincingly; (3) Choi accepted illegal payment for his factual testimony which the court should therefore have excluded from the proceedings; (4) the terms of the license agreement limit it to only that part of the invention to which Choi contributed, not the entire patent; and (5) even if the agreement licenses the entire patent, it cannot release U.S. Surgical from liability for past infringement.

II. CO-INVENTORSHIP

[1] [2] Patent issuance creates a presumption that the named inventors are the true and only inventors. See *Hess v. Advanced Cardiovascular Sys., Inc.*, 106 F.3d 976, 980, 41 USPQ2d 1782, 1785–86 (Fed.Cir.), cert. denied, 520 U.S. 1277, 117 S.Ct. 2459, 138 L.Ed.2d 216 (1997). Inventorship is a question of law, which this court reviews without deference. See *Sewall v. Walters*, 21 F.3d 411, 415, 30 USPQ2d 1356, 1358 (Fed.Cir.1994). However, this court reviews the underlying findings of fact which uphold a district court's inventorship determination for clear error. See *Hess*, 106 F.3d at 980.

[3] [4] A patented invention may be the work of two or more joint inventors. See 35 U.S.C. § 116 (1994). Because “[c]onception is the touchstone of inventorship,” each joint inventor must generally contribute to the conception of the invention. *Burroughs Wellcome Co. v. Barr Lab., Inc.*, 40 F.3d 1223, 1227–28, 32 USPQ2d 1915, 1919 (Fed.Cir.1994). “Conception is the ‘formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice.’ ” *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1376, 231 USPQ 81, 87 (Fed.Cir.1986) (quoting 1 *Robinson on Patents* 532 (1890)). An idea is sufficiently “definite and permanent” when “only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation.” *Burroughs Wellcome*, 40 F.3d at 1228.

[5] [6] [7] The conceived invention must include every feature of the subject matter claimed in the patent. See *Sewall*, 21 F.3d at 415. Nevertheless, for the conception of a joint invention, each of the joint inventors need not “make the same type or amount of contribution” to the invention. 35 U.S.C. § 116. Rather, each needs to perform only a part of the task which produces the invention. On the other hand, one does not qualify as a joint inventor by merely assisting the actual inventor after conception of the claimed invention. See *Sewall*, 21 F.3d at 416–17; *Shatterproof Glass Corp. v. Libbey–Owens Ford Co.*, 758 F.2d 613, 624, 225 USPQ 634, 641 (Fed.Cir.1985) (“An inventor ‘may use the services, ideas and aid of others in the process of perfecting his invention without losing his right to a patent.’ ” (quoting *Hobbs v. U.S. Atomic Energy Comm'n.*, 451 F.2d 849, 864, 171 USPQ 713, 724 (5th Cir.1971))). One who simply provides the inventor with well-known principles or explains the state of the art without ever having “a firm and definite idea” of the claimed combination as a whole does not qualify as a joint inventor. See *Hess*, 106 F.3d at 981 (citing *O'Reilly v. Morse*, 56 U.S. (15 How.) 62, 111, 14 L.Ed. 601 (1853)). Moreover, depending on the scope of a patent's claims, one of ordinary skill in the art who simply reduced the inventor's idea to practice is not necessarily a joint inventor, even if the specification discloses that embodiment to satisfy the best mode requirement. See *Sewall*, 21 F.3d at 416.

[8] Furthermore, a co-inventor need not make a contribution to every claim of a patent. See 35 U.S.C. § 116. A contribution to one claim is enough. See *SmithKline Diagnostics, Inc. v. Helena Lab. Corp.*, 859 F.2d 878, 888, 8 USPQ2d 1468, 1476 (Fed.Cir.1988). Thus, the critical question for joint conception is who conceived, as that term is used in the patent law, the subject matter of the claims at issue.

*1461 [9] [10] 35 U.S.C. § 256 provides that a co-inventor omitted from an issued patent may be added to the patent by a court “before which such matter is called in question.” To show co-inventorship, however, the alleged co-inventor or co-inventors must prove their contribution to the conception of the claims by clear and convincing evidence. See *Hess*, 106 F.3d at 980. However, “an inventor's testimony respecting the facts surrounding a claim of derivation or priority of invention cannot, standing alone, rise to the level of clear and convincing proof.” *Price v. Symsek*, 988 F.2d 1187, 1194,

26 USPQ2d 1031, 1036 (Fed.Cir.1993). The rule is the same for an alleged co-inventor's testimony. See *Hess*, 106 F.3d at 980. Thus, an alleged co-inventor must supply evidence to corroborate his testimony. See *Price*, 988 F.2d at 1194. Whether the inventor's testimony has been sufficiently corroborated is evaluated under a “rule of reason” analysis. *Id.* at 1195. Under this analysis, “[a]n evaluation of *all* pertinent evidence must be made so that a sound determination of the credibility of the [alleged] inventor's story may be reached.” *Id.*

Corroborating evidence may take many forms. Often contemporaneous documents prepared by a putative inventor serve to corroborate an inventor's testimony. See *id.* at 1195–96. Circumstantial evidence about the inventive process may also corroborate. See *Knorr v. Pearson*, 671 F.2d 1368, 1373, 213 USPQ 196, 200 (CCPA 1982) (“[S]ufficient circumstantial evidence of an independent nature can satisfy the corroboration rule.”). Additionally, oral testimony of someone other than the alleged inventor may corroborate. See *Price*, 988 F.2d at 1195–96.

A. Claim 33

[11] The district court determined that Choi contributed to the conception of the subject matter of claim 33. Claim 33 (with emphasis to highlight relevant elements) reads:

A surgical instrument for providing communication through an anatomical organ structure, comprising:

means having an abutment member and *shaft longitudinally accommodatable within an outer sleeve*, longitudinal movement of said shaft inside said sleeve being limited by contact of said abutment member with said sleeve, said shaft having a distal end with a distal blade surface tapering into a sharp distal point, *said distal blade surface being perforated along one side by an aperture*, for puncturing an anatomical organ structure when subjected to force along the longitudinal axis of said shaft;

means having a blunt distal bearing surface, slidably extending through said aperture, for reciprocating through said aperture while said abutment member is in stationary contact with said sleeve;

means positionable between said puncturing means and said reciprocating means for biasing a distal section of said reciprocating means to protrude beyond said aperture and permitting said distal section of said reciprocating means to recede into said aperture when said bearing surface is subject to force along its axis ...; and

means connectible to the proximal end of said puncturing means *for* responding to longitudinal movement of said reciprocating means relative to said puncturing means and *creating a sensible signal* having one state upon recession of said distal section of said reciprocating means into said aperture and another state upon protrusion of said distal section of said reciprocating means from said aperture.

To determine whether Choi made a contribution to the conception of the subject matter of claim 33, this court must determine what Choi's contribution was and then whether that contribution's role appears in the claimed invention. If Choi in fact contributed to the invention defined by claim 33, he is a joint inventor of that claim.

Figures 18 and 19 of the '773 patent illustrate an embodiment of claim 33. These figures show a **trocarr** blade with an aperture through which a blunt rod can extend. When the **trocarr** blade penetrates the inner wall of a cavity, a spring releases the rod, which juts out past the end of the **trocarr** blade and prevents the blade from cutting *1462 further. The embodiment also includes a structure that gives the surgeon aural and visual signals when the blade nears penetration.

The district court found that Yoon conceived of the use of a blunt probe. However, the court found that Choi conceived of and thereby contributed two features contained in the embodiment shown in figures 18 and 19: first, Choi conceived of locating the blunt probe in the **trocarr** shaft and allowing it to pass through an aperture in the blade surface; second, Choi conceived of the “means ... for ... creating a sensible signal.”¹

If Choi did indeed conceive of “locating the blunt probe in the shaft and allowing it to pass through an aperture in the blade surface,” he contributed to the subject matter of claim 33. Claim 33 requires that the “distal blade surface” be “perforated along one side by an aperture” and requires

the “shaft” to be “longitudinally accommodatable within [the] outer sleeve.” Properly construed, claim 33 includes the elements that Choi contributed to the invention according to the district court’s findings.

In making this finding, the district court relied extensively on Choi’s testimony. Choi testified that the idea of extending the blunt probe through an aperture in the **trocars** blade itself was his idea. To corroborate this testimony, Choi produced a series of sketches he created while working with Yoon. One sketch shows a probe inside the shaft of a **trocars** blade, extending through an opening in the side of the end of the blade.

To rebut Choi’s showing, Yoon presented a drawing dated July 1973, which disclosed elements of claim 33. The district court determined, however, that Dr. Yoon had altered this drawing. In fact, according to the district court, it had originally depicted a device from an entirely different patent. Due to its suspicious origins, the trial court rejected it as unreliable.

The court also discounted Yoon’s testimony for lack of credibility. Indeed the record supports the trial court’s conclusion that Yoon altered and backdated documents to make it appear that he had independently invented **trocars**, shields, and electronics. Moreover, Yoon’s trial testimony clashed with his earlier deposition testimony. For instance, before learning of Choi’s role in the case, Yoon falsely testified at his deposition that (1) he had worked with Choi as early as 1975 and (2) the sketches at issue in this case had been drawn completely by him. However, the two did not meet until 1980, and when later questioned about authorship of the documents, Yoon replied, “If I said [that] at that time, then maybe I was confused.” The district court justifiably discounted Yoon’s testimony.

In sum, after full consideration of the relevant evidence, the district court determined that Choi conceived part of the invention recited in claim 33. This court detects no cause to reverse this determination.

B. Claim 47

[12] The district court also determined that Choi contributed to the conception of the subject matter of

claim 47. Claim 47 (with emphasis to highlight relevant elements) reads:

A surgical instrument for providing communication through an anatomical organ structure, comprising:

means having an elongate shaft exhibiting a longitudinal axis and terminating in a sharp, distal end, for puncturing the cavity wall of an anatomical organ structure;

means borne by said puncturing means distal end for converting counterforce exerted by said cavity wall against said distal end into transmissible energy;

means connected to said converting means for conveying said transmissible energy toward the proximal end of said puncturing means;

***1463** means having an interior bore coaxially aligned with the longitudinal axis of said shaft for receiving said puncturing means proximal end;

means for biasing said puncturing means proximal end to withdraw into said interior bore;

means interposed between said puncturing means proximal end and said interior bore assuming a normally protruding position for determining [sic: detaining²] said puncturing means proximal end extended from said interior cavity in opposition to said biasing means.

To determine whether Choi made a contribution to the conception of the subject matter of claim 47, this court must determine what Choi’s contribution was and then construe the claim language to determine if Choi’s contribution found its way into the defined invention.

Figures 34, 35, and 36 illustrate the invention in claim 47. In these embodiments, a cocked spring pulls the **trocars** back into a protective sheath as soon as the blade has punctured the inner wall. Release of the detaining means triggers the retracting spring action. The two detaining means disclosed in the specification are (1) a detent³ extending radially outward from the **trocars** through a hole in the sheath and (2) a rod extending horizontally from the proximal end of the **trocars** that butts against an off-center, but slidable, bar with a hole in its center. In the case of the detent detaining means, when a sensor detects that the **trocars** blade has pierced the wall of a cavity, the

plunger of a solenoid pushes the detent out of the hole in the sheath. In the case of the rod detaining means, the solenoid plunger positions the bar so that the hole in its center aligns with the rod.

The district court concluded that Yoon generally invented the retractable [trocar](#), but that Choi invented both of the detaining means disclosed in the specification. In addition to oral testimony of the parties, the district court cited Choi's sketches, one of which clearly shows the rod detaining means. However, the sketch in which the district court would find the detent detaining means appears to work differently than the embodiment described in the ['773 patent](#). Instead of a detent that extends radially outward through a hole in the sheath, the sketch illustrates the use of the solenoid plunger itself as a detent, extending radially *inward* through a hole in the sheath. Thus, the record does not show that Choi contributed to the detent detaining means. Therefore, this court affirms the district court's finding that Choi contributed the rod detaining means, but determines that the trial court clearly erred in finding that Choi contributed the detent detaining means.

In this instance, however, claim 47 recites a “means ... for [detaining].” The use of the word “means” gives rise to “a presumption that the inventor used the term advisedly to invoke the statutory mandates for means-plus-function clauses.” *York Prods., Inc. v. Central Tractor Farm & Family Ctr.*, 99 F.3d 1568, 1574, 40 USPQ2d 1619, 1623 (Fed.Cir.1996). Although the presumption is not conclusive, *see, e.g., id.* (construing “means” in claim without reference to [section 112](#), paragraph 6), the means language here invokes the interpretation regimens of [section 112](#), paragraph 6. Thus applying [section 112](#), paragraph 6 to interpret this claim, the language adopted the two structures in the specification to define the means for detaining.

[13] Choi showed contribution to one of these alternative structures. The contributor of any disclosed means of a means-plus-function claim element is a joint inventor as to that claim, unless one asserting sole inventorship can show that the contribution of that means was simply a reduction to practice of the sole inventor's broader concept. *See Sewall*, 21 F.3d at 416 (holding that the designer *1464 of one disclosed means was not a joint inventor). Although the district court found that Yoon first conceived of a retractable [trocar](#) generally, Yoon did not show that Choi's contribution was simply a reduction

to practice of the broader concept of using any detaining means commensurate with the scope of claim 47. Thus, Choi showed entitlement to the status of co-inventor for this claim as well.

C. Corroboration

[14] As corroboration for his testimony of co-invention, Choi proffers sketches of his work. These sketches were in Yoon's possession since their creation. The parties do not dispute, however, that Choi in fact created the sketches. Instead, Yoon contends that he first disclosed the invention to Choi, who then made the sketches to illustrate what he learned from Yoon. Absent sufficient corroboration, inventorship would turn solely on a credibility contest between Yoon and Choi. The district court, however, found sufficient corroboration.

Taken together, the alleged co-inventor's testimony and the corroborating evidence must show inventorship “by clear and convincing evidence.” This requirement is not to be taken lightly. Under the “rule of reason” standard for corroborating evidence, *Holmwood v. Sugavanam*, 948 F.2d 1236, 1238–39, 20 USPQ2d 1712, 1714 (Fed.Cir.1991), the trial court must consider corroborating evidence in context, make necessary credibility determinations, and assign appropriate probative weight to the evidence to determine whether clear and convincing evidence supports a claim of co-inventorship.

Accordingly, there need not be corroboration for every factual issue contested by the parties. For example, in *Price*, the junior party in an interference proceeding proffered drawings of his conceived invention, his affidavit that he had conceived the invention before the critical date, and an affidavit from a third person stating that she had seen one of the drawings before that time. However, the junior party lacked corroborating evidence that it was he who had created the drawings because the third party could not attribute the drawings to him. This court held that “all of the evidence put forth” should have been considered and acknowledged that “an inventor can conceivably prove prior conception by clear and convincing evidence although no one piece of evidence in and of itself establishes the prior conception.” *Price*, 988 F.2d at 1196.

In this case, Choi's sketches show the invention. The parties agree that Choi made the sketches. The contest involves whether Choi conceived of the material in the sketches or merely drew what Yoon conceived. The district court noted many circumstantial factors further corroborating Choi's conception claim: (1) Yoon's need for a person with expertise in electronics; (2) Choi's background in electronics, (3) Yoon's proposal that he and Choi should work together to develop new products, including safety [trocars](#), (4) their informal business relationship, (5) the length of time they worked together, (6) the absence of any pay to Choi for his work, (7) the similarity between Choi's sketches and the patent figures, and (8) the letter in which Choi stated that he could no longer be a "member" of Yoon's business. Additionally, U.S. Surgical introduced expert testimony that some of the sketches dealt with sophisticated concepts that only an electrical engineer or technician would understand. Consequently, the district court found that Choi was presenting ideas to Yoon as the sketches were drawn, rather than the other way around.

On appeal, this court declines to reweigh the evidence. Instead, this court determines that the record shows that corroboration evidence in this case satisfies the "rule of reason." Thus, this court must only further assess whether the district court's factual conclusions, given the clear and convincing evidence standard, were clearly erroneous. Here, given the sketches, Choi's testimony, and the established circumstances, in contrast with Yoon's testimony, expressly found to lack credibility by the trial court, this court discerns no clear error.

In reaching this determination, this court has also considered alleged inconsistencies in Choi's testimony. In August 1992, U.S. Surgical's counsel first sent Choi a copy of the ['773 patent](#). Choi circled figures and claims describing that which he claimed to have contributed. Choi circled some claims ***1465** that he does not now assert to have had a role in inventing. He also did not circle claims he now claims to have co-invented. However, the district court could have reasonably found that a layman, untrained in the language of the patent law, may reasonably err in interpreting claim language. Moreover, Choi might well have confused the legal distinction between conception (which justifies a finding of inventorship) and reduction to practice (which does not). In any event, this court affirms the district court's holding that Choi was a co-inventor of claims 33 and 47.⁴

III. ADMISSIBILITY ISSUES

[15] Under the terms of its license agreement, U.S. Surgical gave Choi an immediate payment of \$300,000. Future payments of up to \$100,000 per year for ten years are contingent on U.S. Surgical's prevailing in this action. In return, Choi granted U.S. Surgical an exclusive license in "Choi's [trocar](#) related inventions." In addition, Choi agreed to testify in a proceeding to correct inventorship of the ['773 patent](#) and to "render all reasonable assistance requested by [U.S. Surgical] to defend or settle" this action. As the district court concluded, these license agreement terms do not constitute payment for testimony as a fact witness.

[16] This court reviews matters pertaining to the admissibility of evidence under the law of the particular regional circuit where appeals from the district court would normally lie. The Second Circuit accords trial courts broad discretion to determine the admissibility of evidence. *See Perry v. Ethan Allen, Inc.*, 115 F.3d 143, 150 (2d Cir.1997). To warrant appellate correction, a trial court must commit an abuse of that broad discretion. *See id.*

A patent license agreement that binds the inventor to participate in subsequent litigation is very common. Indeed, Yoon's agreement with Ethicon contains a similar clause. This sort of agreement simply assures the licensee that it will be able to defend the property in which it has purchased an interest.

[17] Furthermore, a witness's pecuniary interest in the outcome of a case goes to the probative weight of testimony, not its admissibility. *See, e.g., Den Norske Bank AS v. First Nat'l Bank of Boston*, 75 F.3d 49, 58 (1st Cir.1996) (holding that interests of expert witnesses who were employees of plaintiff affected the weight of their testimony, not its admissibility). The district court did not abuse its discretion by admitting Choi's testimony into evidence, subject to cross-examination that might expose Choi's bias.

IV. SCOPE OF THE CHOI– U.S. SURGICAL LICENSE

Questions of patent ownership are distinct from questions of inventorship. See *Beech Aircraft Corp. v. EDO Corp.*, 990 F.2d 1237, 1248, 26 USPQ2d 1572, 1582 (Fed.Cir.1993). In accordance with this principle, this court has nonetheless noted that “an invention presumptively belongs to its creator.” *Teets v. Chromalloy Gas Turbine Corp.*, 83 F.3d 403, 406, 38 USPQ2d 1695, 1697 (Fed.Cir.), cert. denied, 519 U.S. 1009, 117 S.Ct. 513, 136 L.Ed.2d 402 (1996).

[18] Indeed, in the context of joint inventorship, each co-inventor presumptively⁵ owns a pro rata undivided interest in the entire patent, no matter what their respective contributions. Several provisions of the Patent Act combine to dictate this rule. 35 U.S.C. § 116, as amended in 1984,⁶ states that a joint inventor need not make a contribution “to the subject matter of every claim of the patent.” In amending section 116 as to joint inventorship, Congress did not make corresponding modifications as to joint ownership. For example, section 261 continues to provide that “patents shall have the attributes *1466 of personal property.” This provision suggests that property rights, including ownership, attach to patents as a whole, not individual claims. Moreover, section 262 continues to speak of “joint owners of a patent,” not joint owners of a claim. Thus, a joint inventor as to even one claim enjoys a presumption of ownership in the entire patent.

[19] This rule presents the prospect that a co-inventor of only one claim might gain entitlement to ownership of a patent with dozens of claims. As noted, the Patent Act accounts for that occurrence: “Inventors *may* apply for a patent jointly even though ... each did not make a contribution to the subject matter of every claim.” 35 U.S.C. § 116 (emphasis added). Thus, where inventors choose to cooperate in the inventive process, their joint inventions may become joint property without some express agreement to the contrary. In this case, Yoon must now effectively share with Choi ownership of all the claims, even those which he invented by himself. Thus, Choi had the power to license rights in the entire patent.

This court next examines the extent to which Choi exercised that power. This court reviews the interpretation of contractual language, including license agreements, as a question of law. See *Intel Corp. v. ULSI Sys. Tech., Inc.*, 995 F.2d 1566, 1569, 27 USPQ2d 1136, 1138 (Fed.Cir.1993). State law, in this case Connecticut law,

controls in matters of contract interpretation. Thus, in making its review, this court adopts the ordinary and common meaning of contract terms whenever possible. See *Sturman v. Socha*, 191 Conn. 1, 463 A.2d 527, 532 (1983).

[20] The license which Choi granted to U.S. Surgical states:

Choi hereby grants to U.S. Surgical an exclusive, worldwide right and license to make, have made, use, market and sell *Choi's trocar related inventions, including trocars having shields and those described and/or claimed in the '773 patent*. This license is retroactive to the date on which the '773 patent issued.

U.S. Surgical reads this language to cover all *trocars* “described and/or claimed in the '773 patent,” encompassing the entire '773 patent and more. Ethicon reads the same language as limited to “Choi's *trocar related inventions*,” which comprise only his contributions to claims 33 and 47 of the '773 patent.

The meaning of the phrase “including *trocars* ... described and/or claimed in the '773 patent” depends on the meaning of the word “including.” If construed to merely clarify the meaning of “*trocar related inventions*,” the phrase it modifies, then “including” could limit the scope of Choi's grant. “Including,” however, can also operate as a phrase of addition. Under this broader reading, the phrase “*trocar related inventions*” covers more than just the material specified in the “including” phrase.

[21] If possible, this court must view a single provision of a contract in the way that gives meaning to—and provides internal harmony among—all parts of the contract. See *Barnard v. Barnard*, 214 Conn. 99, 570 A.2d 690, 696 (1990). Read in context, the “including” phrase is a phrase of addition, not a limitation on the scope of “*trocar related inventions*.” For example, the agreement states that Choi “has not ... and shall not, grant to any other person ... any right or license to make, use or sell any of his *trocar related inventions* or any device described or within the scope of *any* of the claims of the '773 patent.” (emphasis

added). In addition, the agreement states, “Choi hereby grants to [U.S. Surgical] the sole right to sue any infringer of the '773 patent....” If the scope of the license did not encompass all of Choi’s rights as a joint owner of the '773 patent, these supplementary provisions were inexplicably much too broad. Rather, in context, Choi’s grant meant to license all of his rights as a joint owner under the '773 patent.

Thus, the district court’s interpretation of the Choi license was correct as a matter of law.

V. RETROACTIVE LICENSURE

[22] Finally, Ethicon argues that even if the license agreement is enforceable as to the entire patent, it should still be allowed to proceed against U.S. Surgical to recover damages for pre-license infringement. Ethicon contends that to hold otherwise would contravene the decision in *Schering Corp. v. *1467 Roussel–UCLAF SA*, 104 F.3d 341, 41 USPQ2d 1359 (Fed.Cir.1997). This court agrees with Ethicon’s challenge to the retroactive effect of Choi’s license, but must affirm the dismissal of the case based on Choi’s refusal to join as plaintiff in the suit.

In *Schering*, Roussel and Schering, the two co-owners of the patent in suit, entered into an agreement whereby each granted the other a unilateral right to sue third parties for infringement. Schering then sued to enjoin Zeneca, Inc. from proceeding with planned sales of an allegedly infringing product. Schering joined Roussel in the action as an involuntary plaintiff. Two weeks later, Roussel granted Zeneca a license to practice the patented invention. The district court dismissed Schering’s suit. Schering appealed.

On appeal, Schering argued that because Roussel had granted Schering a unilateral right to sue, Roussel could not now grant a license to Zeneca. Schering contended that one grant was incompatible with the other. The court rejected Schering’s argument, reasoning that “[t]he right to license and the unilateral right to sue are ... not incompatible, and the granting of one does not necessarily imply the relinquishment of the other.” *Id.* at 345. This court acknowledged the critical distinction that a license to a third party only operates prospectively. Absent agreement to the contrary, a co-owner cannot grant a release of another co-owner’s right to accrued

damages. Consequently, a co-owner who has granted a unilateral right to sue to another co-owner may also license a third party. Nevertheless, by virtue of the unilateral right to sue, the second co-owner can still force the first co-owner to join an infringement action against the licensee to recover the second co-owner’s accrued damages for past infringement. Thus, a prospective license is not per se incompatible with a unilateral right to sue, and, barring any other applicable contractual provision, Schering could not prevent Roussel from granting a license to Zeneca.⁷

[T]he grant of a license by one co-owner cannot deprive the other co-owner of the right to sue for accrued damages for past infringement. That would require a release, not a license, and the rights of a patent co-owner, absent agreement to the contrary, do not extend to granting a release that would defeat an action by other co-owners to recover damages for past infringement.

Id. at 345.

Thus, Choi’s “retroactive license” to U.S. Surgical attempts to operate as the combination of a release and a prospective license.⁸ Nonetheless Choi cannot release U.S. Surgical from its liability for past accrued damages to Ethicon, only from liability to himself.

[23] One more settled principle governs this case, however. An action for infringement must join as plaintiffs all co-owners. See *Waterman v. Mackenzie*, 138 U.S. 252, 255, 11 S.Ct. 334, 335, 34 L.Ed. 923 (1891) (“The patentee or his assigns may, by instrument in writing, assign, grant, and convey, either (1) the whole patent ...; or (2) an undivided part or share of that exclusive right; or (3) the exclusive right under the patent within and throughout a specified part of the United States. A transfer of either of these three kinds of interests is an assignment, properly speaking, and vests in the assignee a title in so much of the patent itself, with a right to sue infringers. In the second case, *jointly with the assignor*. In the first and third cases, in the name of the assignee alone.” (emphasis added)); *Moore v. Marsh*, 74 U.S. (7 Wall.) 515, 520, 19 L.Ed. 37 (1868) (“[W]here [an] assignment is of an undivided part of the patent, the action *1468 should be brought for every infringement committed subsequent to the assignment, in the joint names of the patentee and assignee, as representing the entire interest.”).

[24] [25] [26] Further, as a matter of substantive patent law, all co-owners must ordinarily consent to join as plaintiffs in an infringement suit.⁹ Consequently, “one co-owner has the right to impede the other co-owner’s ability to sue infringers by refusing to voluntarily join in such a suit.” *Schering*, 104 F.3d at 345.

This rule finds support in [section 262](#) of the Patent Act:

In the absence of any agreement to the contrary, each of the joint owners of a patent may make, use, offer to sell, or sell the patented invention within the United States, or import the patented invention into the United States, without the consent of and without accounting to the other owners.

This freedom to exploit the patent without a duty to account to other co-owners also allows co-owners to freely license others to exploit the patent without the consent of other co-owners. *Schering*, 104 F.3d at 344 (“Each co-owner’s ownership rights carry with them the right to license others, a right that also does not require the consent of any other co-owner.”). Thus, the congressional policy expressed by [section 262](#) is that patent co-owners are “at the mercy of each other.” *Willingham v. Lawton*, 555 F.2d 1340, 1344, 194 USPQ 249, 252 (6th Cir.1977).

[27] Although in this case, the result is effectively no different than if Choi could grant a release to U.S. Surgical of any liability to Ethicon, it should be emphasized that the principle that governs this case is not incompatible with the principle enunciated in *Schering*. In *Schering*, this court noted that the granting of a unilateral right to sue is not incompatible with the right to grant a license. Similarly, this court notes that the inability to grant a release is not incompatible with the right to refuse to consent to an infringement suit. It is true that, in some circumstances, the decision of one co-owner to not join an infringement suit may have the same effect as granting a release, but this is not true in all cases. For example, when co-owners have granted each other a unilateral right to sue, each has waived his right not to join an infringement suit, and either of them can force the other to join a suit to collect accrued infringement damages.

Because Choi did not consent to an infringement suit against U.S. Surgical and indeed can no longer consent due to his grant of an exclusive license with its accompanying “right to sue,” Ethicon’s complaint lacks the participation of a co-owner of the patent. Accordingly, this court must order dismissal of this suit.

VI. CONCLUSION

Accordingly, the judgment of the United States District Court for the District of Connecticut is affirmed.

COSTS

Each party shall bear its own costs.

AFFIRMED.

[PAULINE NEWMAN](#), Circuit Judge, dissenting.

I respectfully dissent, for whether or not Mr. Choi made an inventive contribution to two of the fifty-five claims of the '773 patent, he is not a joint owner of the other fifty-three claims of the patent. Neither the law of joint invention nor the law of property so requires, and indeed these laws mandate otherwise.

The district court found that Mr. Choi made a contribution to two claims of the '773 patent. Although precedent would as readily place Mr. Choi’s work in the category whereby “an inventor ‘may use the services, ideas and aid of others in the process of perfecting his invention without losing his right to a *1469 patent,’ ” *Shatterproof Glass Corp. v. Libbey–Owens Ford Co.*, 758 F.2d 613, 624, 225 USPQ 634, 641 (Fed.Cir.1985) (quoting *Hobbs v. United States Atomic Energy Comm’n*, 451 F.2d 849, 864, 171 USPQ 713, 724 (5th Cir.1971)), the district court’s finding as to the two claims is not clearly in error. That conclusion is not my primary concern. My primary concern is with the failure of the court to recognize, in deciding ownership rights, the effect on these rights of the 1984 amendment of [35 U.S.C. § 116](#), which markedly changed the law of naming inventors on patents, and authorized the “joint invention” here adjudicated.

Before the statutory change made in 1984 Mr. Choi could not have been named a “joint inventor” of the ['773 patent](#), for he had not jointly conceived and contributed to the entire invention. It is not disputed that his contribution is limited to elements of two of the fifty-five patent claims. Such a person was not a “joint inventor” under pre-1984 law. That law required that joint invention be the “simultaneous production of the genius and labor of both parties.” *Stearns v. Barrett*, 22 F. Cas. 1175, 1181 (C.C.D.Mass.1816) (Story, J.). Joint ownership, in turn, was based on this principle of joint invention.

Those assistants who worked on an invention at the behest of the originator of the idea did not achieve the legal status of “joint inventor.” Having no legal status as an inventor, such assistants acquired no property right in the invention by virtue of their contributions. See *Collar Co. v. Van Dusen*, 90 U.S. (23 Wall.) 530, 563–64, 23 L.Ed. 128 (1874) (ancillary discoveries of assistant belong to person who conceived original principle unless they “constitute the whole substance of the improvement”); *Agawam Co. v. Jordan*, 74 U.S. (7 Wall.) 583, 602–4, 19 L.Ed. 177 (1868) (same). In *Agawam* the Court explained that one less than a true joint inventor was forbidden from “appropriat[ing] to himself the entire result of the ingenuity and toil of the originator, or put[ing] it in the power of any subsequent infringer to defeat the patent.” 74 U.S. at 604.

The 1984 amendment of [35 U.S.C. § 116](#) permitted the naming as an inventor of all persons who assisted in the development of an idea, or parts thereof, that originated with others. Such naming, however, does not automatically endow the assistant with full and common ownership of the entire invention, including the contributions of all others including the originator. That is not a reasonable consequence of the change in the law of naming inventors that occurred in 1984.

A. The Law of Joint Invention

The purpose of the amendment of [§ 116](#) was to remedy the increasing technical problems arising in team research, for which existing law, deemed to require simultaneous conception as well as shared contribution by each named inventor to every claim, was producing pitfalls for patentees, to no public purpose. As stated in its legislative history, the amendment to [35 U.S.C. § 116](#) “recognizes the realities of modern team research.” 130 Cong. Rec. 28,069–71 (1984) (statement of Rep. Kastenmeier).

Before 1984 precedent did not permit naming as an inventor a person who did not share in the conception of the invention and who did not contribute to all of the claims of the patent. See *In re Sarett*, 51 C.C.P.A. 1180, 327 F.2d 1005, 1010 n. 7, 140 USPQ 474, 479 n. 7 (CCPA 1964) (“It should be clear that the patent could not *legally* contain a claim to Sarett's *sole* invention under existing law because it would not have been the invention of the *joint* patentees.” (emphases in original)); *In re Hamilton*, 17 C.C.P.A. 833, 37 F.2d 758, 759, *op. den. reh'g*, 17 C.C.P.A. 914, 38 F.2d 889, 890 (CCPA 1930) (joint patent could not issue on portion of invention made by single inventor). If different persons made an inventive contribution to various parts of an invention or to different claims of a patent, the legalistic problems that arose were not readily soluble, even by the complex, expensive, and often confusing expedient of filing separate patent applications on separate claims.

The progress of technology exacerbated the inventorship problems. Patents were invalidated simply because all of the named inventors did not contribute to all the claims; and patents were also invalidated when there were contributors to some of the claims who were not named. See [*1470 Jamesbury Corp. v. United States](#), 207 Ct.Cl. 516, 518 F.2d 1384, 1395, 187 USPQ 720 (1975) (inclusion of more or less than the true inventors renders patent void and invalid); *Amax Fly Ash Corp. v. United States*, 206 Ct.Cl. 756, 514 F.2d 1041, 1050, 182 USPQ 210, 217 (1975) (“Where more or less than the true inventors are named, the patent is void.”); *Hobbs*, 451 F.2d at 864–65, 171 USPQ at 724 (patent on joint invention issued to one inventor is invalid); *Iowa State Univ. Research Found., Inc. v. Sperry Rand Corp.*, 444 F.2d 406, 408, 170 USPQ 374, 376 (4th Cir.1971) (“the law has been strictly construed to grant patents only to the true inventors”); *Pointer v. Six Wheel Corp.*, 177 F.2d 153, 157–58, 83 USPQ 43, 46–48 (9th Cir.1949) (patent issued to only one of the inventors is void); *Shreckhise v. Ritchie*, 160 F.2d 593, 595, 73 USPQ 138, 140–41 (4th Cir.1947) (same, citing cases); *Thropp & Sons Co. v. De Laski & Thropp Circular Woven Tire Co.*, 226 F. 941, 947–48 (3d Cir.1915) (joint patent on invention of one is invalid as to all); *Rival Mfg. Co. v. Dazey Prods. Co.*, 358 F.Supp. 91, 101, 177 USPQ 432, 439–40 (W.D.Mo.1973) (patent issued to one is invalid for failure to join others); *Stewart v. Tenk*, 32 F. 665, 666 (C.C.S.D.Ill.1887) (claim to sole invention is invalid in joint patent); *Worden v.*

Fisher, 11 F. 505, 508–9 (C.C.E.D.Mich.1882) (when two persons invent distinct parts of machine they should take out separate patents). Indeed, at the time the '773 patent application was filed in 1982, most practitioners believed that a separate application was required if it was desired to present, for example, the two claims that contain Mr. Choi's contribution. See generally John F. Pearne, *Must Each Inventor Named in a Patent Application Have Made an Inventive Contribution to Each of the Claims Thereof?*, 58 J. Pat. Off. Soc'y 205 (1976) (discussing then-proposed amendments to § 116).

As team research increased with the growth of technology-based industry, so did the dilemma, for the rules of joint inventorship were not readily adaptable to the development of complex inventions. It became apparent that legislative remedy was needed. The amendment of 35 U.S.C. § 116 provided a simple solution to a complex problem:

§ 116 [second sentence] Inventors may apply for a patent jointly even though (1) they did not physically work together or at the same time, (2) each did not make the same type or amount of contribution, or (3) each did not make a contribution to the subject matter of every claim of the patent.

Pub.L. 98–622, § 104, 98 Stat. 3384, Nov. 8, 1984. The amendment identified the three major pitfalls that had arisen, and removed them.

This amendment did not also deal with the laws of patent ownership, and did not automatically convey ownership of the entire patent to everyone who could now be named as an inventor, whatever the contribution. The amendment simply permitted persons to be named on the patent document, whether as minor contributors to a subordinate embodiment, or full partners in the creation and development of the invention. The ownership relationships among the persons who, under § 116, could now be recognized as contributors to the invention, is irrelevant to the purpose of the amendment of § 116, and to its consequences. Section 116 has nothing to do with patent ownership.

B. The Law of Joint Ownership

The pre-1984 rule of joint ownership of joint inventions can be readily understood in its historical context, for

a legally cognizable “joint invention” required mutuality of interaction and a real partnership in the creation and development of the invention. On this foundation, a “joint inventor” was also, justly and legally, an equal owner of the idea and of any patent thereon. *Pointer*, 177 F.2d at 157–58, 83 USPQ at 46–48 (“as the cases just cited show clearly, in order that an invention be truly called a joint invention, it must appear by clear and convincing proof that the two inventors collaborated in evolving the patented device”); see 1 Donald S. Chisum, *Chisum on Patents* § 202[2] & n.2 (rel. May 1987) (“Only where the same single, unitary idea of means is the product of two or more minds, working *pari passu*, and in communication with each other, is the conception truly joint and the result a joint invention,” quoting 1 William C. Robinson, *The Law of Patents for Useful Inventions* § 396 (1890)).

The law of patent ownership has its roots in the common law of property—although a patent has its own peculiar character, for it *1471 deals with intangibles. See *Crown Die & Tool Co. v. Nye Tool & Machine Works*, 261 U.S. 24, 40, 43 S.Ct. 254, 258, 67 L.Ed. 516 (1923) (a patent is a creature of statute); *Gayler v. Wilder*, 51 U.S. (10 How.) 477, 494, 13 L.Ed. 504 (1850). Certain incidents of patent ownership have been created or clarified by statute, see 35 U.S.C. § 262, yet the common law provided the basic rules, as manifested in the concepts of tenancy in common and undivided interests that courts have drawn upon in patent ownership disputes.

The jurisprudence governing property interests is generally a matter of state law. Even when the property is the creation of federal statute, private rights are usually defined by state laws of property. This has long been recognized with respect to patent ownership and transfers. See *Jim Arnold Corp. v. Hydrotech Sys., Inc.*, 109 F.3d 1567, 1572, 42 USPQ2d 1119, 1123 (Fed.Cir.1997) (“the question of who owns the patent right and on what terms typically is a question exclusively for state courts”); *Roach v. Crouch*, 524 N.W.2d 400, 33 USPQ2d 1361 (Iowa 1994) (patent ownership issue properly triable in state court). It is equally established that inventorship and patent ownership are separate issues. *Beech Aircraft Corp. v. EDO Corp.*, 990 F.2d 1237, 1248–49, 26 USPQ2d 1572, 1582 (Fed.Cir.1993).

Most of the disputes concerning patent ownership that reached the Supreme Court dealt not with joint invention, but assignments and other transfers. The oft-cited case of

Waterman v. Mackenzie, 138 U.S. 252, 11 S.Ct. 334, 34 L.Ed. 923 (1891) dealt with a dispute among the inventor's spouse and various assignees concerning ownership of the fountain pen patent, not inventorship. Occasionally an issue of ownership of patent property arose based on whether the claimant actually shared fully in the creation of the invention. In such cases, as cited *supra*, the decision on “joint invention” also decided the issue of ownership, for a person who had fully shared in the creation of the invention was deemed to be a joint owner of the entire patent property. On this premise each joint inventor was deemed to occupy the entirety of the patented subject matter, on a legal theory of tenancy in common. See 7 Richard R. Powell, *Powell on Real Property* ¶ 602[5] (1997) (“undivided fractional shares held by tenants in common are usually equal and are presumed equal unless circumstances indicate otherwise”). As patent property became viewed more precisely as personal property, see 35 U.S.C. § 261, the concept of tenancy in common was adjusted to that of an undivided interest, although with no substantial change in legal rights.

After the major change that the 1984 amendment to § 116 made in “joint invention,” by authorizing the naming of any contributor to any claim of a patent, the legal premise that each named person had made a full and equal contribution to the entire patented invention became obsolete. See *SmithKline Diagnostics, Inc. v. Helena Labs. Corp.*, 859 F.2d 878, 888–89, 8 USPQ2d 1468, 1477 (Fed.Cir.1988) (collecting cases). It is not an implementation of the common law of property, or its statutory embodiments, to treat all persons, however minor their contribution, as full owners of the entire property as a matter of law. The law had never given a contributor to a minor portion of an invention a full share in the originator's patent.

By amending § 116 in order to remove an antiquated pitfall whereby patents were being unjustly invalidated, the legislators surely did not intend to create another inequity. Apparently no one foresaw that judges might routinely transfer pre-1984 ownership concepts into the changed inventorship law. I have come upon no discussion of this anomaly in various scholarly articles on the amended § 116. See, e.g., David W. Carstens, *Joint Inventorship under 35 U.S.C. § 116*, 73 J. Pat. Off. Soc'y 616 (1991) (discussing amended § 116); W. Fritz Fasse, *The Muddy Metaphysics of Joint Inventorship: Cleaning Up After the 1984 Amendments to 35 U.S.C. § 116*, 5 Harv. J.L. &

Tech. 153 (1992), at 201–2 (citing PTO rules implementing amended § 116 and referring to the possibility of lack of common ownership of the subject matter, in the sense of assignment obligations of separately-employed inventors to distinct employers, yet overlooking other divided ownership problems).

In the case at bar, the district court recognized that Dr. Yoon originated the fundamental concept and the major aspects of its *1472 implementation. The court, however, construed the law as requiring that since Mr. Choi was named as a “joint inventor” (in accordance with the retroactivity legislated for the amendment to § 116) he automatically owned an undivided interest in the entire patent, and had the unencumbered and unfettered right to alienate an interest in the entire patent. Thus Mr. Choi, who would not pass the pre-1984 test of joint inventor, was nonetheless awarded full property rights in the entire invention and patent, as if he had been a true joint inventor of all the claims.

The panel majority, confirming this error, holds that Mr. Choi's contribution to two claims means and requires that Yoon “must now effectively share with Choi ownership of all the claims, even those which he invented by himself.” That is incorrect. As I have discussed, the law of shared ownership was founded on shared invention, a situation that admittedly does not here prevail. Whether or not Mr. Choi is now properly named under § 116 because of his contribution to two claims, he is not a joint owner¹ and he does not have the right to grant a license under all fifty-five claims. No theory of the law of property supports such a distortion of ownership rights. Thus I must, respectfully, dissent from the decision of the panel majority.

C. Issues of Joinder, Rule 19

The panel majority holds that although Mr. Choi's grant of a license under all fifty-five claims of the '773 patent does not have retroactive effect and thus does not relieve U.S. Surgical of liability for past infringement, Dr. Yoon is powerless to recover for past infringement because Mr. Choi as joint inventor refuses to join in the suit. Precedent and the Federal Rules do not support this ruling. *Schering Corp. & Roussel-Uclaf S.A. v. Zeneca, Inc.*, 104 F.3d 341, 41 USPQ2d 1359 (Fed.Cir.1997), relied on by the panel majority, does not bar Dr. Yoon's suit for past infringement and does not bar the joinder of Mr. Choi as an involuntary party in accordance with Fed.R.Civ.P. 19.

Nor do *Waterman v. Mackenzie*, 138 U.S. at 255, 11 S.Ct. at 335, *Moore v. Marsh*, 74 U.S. (7 Wall.) 515, 520, 19 L.Ed. 37 (1868), or the other cases cited by the majority. There is no barrier to the involuntary joinder of a joint inventor and/or co-owner under Rule 19, if such is needed to bring before the court all persons deemed necessary to the suit. See also *Howes v. Medical Components, Inc.*, 698 F.Supp. 574, 576 (E.D.Pa.1988) (“Rule 19 ‘makes inappropriate any contention that patent co-owners are per se indispensable in infringement suits’ ”). Further,

Mr. Choi is already before the court as a party, having voluntarily intervened, by general appearance.

Thus I must also dissent from this ruling of my colleagues.

All Citations

135 F.3d 1456, 45 U.S.P.Q.2d 1545, 48 Fed. R. Evid. Serv. 1226

Footnotes

- 1 U.S. Surgical's position here is that this is a means-plus-function element, and the only corresponding structures in the specification are the two alternative electrical networks pictured in figures 5 and 30 of the '773 patent. See 35 U.S.C. § 112, ¶ 6 (1994). The parties do not dispute that Choi designed these networks. However, Ethicon argues that the corresponding structure is a switch—conceived of by Yoon. Given our resolution of the inventorship of claim 33 on other grounds, we need not address this issue.
- 2 The prosecution history plainly shows that this is a typesetting error. See Response to Office Action of November 21, 1983 (filed May 21, 1984), p. 25.
- 3 The district court referred to this element as a “plunger,” although the '773 patent's specification very clearly refers to it as a “detent.” It is the solenoid that has a plunger. See '773 patent, col. 17, lines 20–26; col. 18, lines 1–5. The district court's nomenclature is consistent, however, with one of Choi's sketches, as discussed below.
- 4 Ethicon does not appeal the district court's determination that Choi's claim of co-inventorship was not barred by laches or equitable estoppel.
- 5 Ethicon does not claim that Choi had a contractual or other duty to assign his patent rights to Yoon.
- 6 The 1984 amendments apply here. The Patent Law Amendments Act of 1984 states that with certain exceptions “the amendments made by this Act ... shall apply to all United States patents granted before, on, or after the date of enactment [Nov. 8, 1984].” Pub.L. No. 98–622, 98 Stat. 3383, § 106(a) (1984); see also *SmithKline Diagnostics*, 859 F.2d at 888–89.
- 7 A twist provided by the facts of *Schering* was that Schering was seeking only prospective relief. Therefore, the *Schering* court's distinction evaporated under the specific facts of the case—that is, until Schering alleged for the first time on appeal that some of Zeneca's pre-license conduct constituted infringement. The *Schering* court remanded, in part, to allow Schering to pursue these potential pre-license infringement claims. See *Schering*, 104 F.3d at 347.
- 8 Although “retroactive licenses” of patent rights have been enforced by the courts without specifically referring to them in this way, all of these cases have involved “retroactive licenses” granted by a sole owner. See, e.g., *Studiengesellschaft Kohle, M.B.H. v. Hercules, Inc.*, 105 F.3d 629, 41 USPQ2d 1518 (Fed.Cir.1997).
- 9 Two established exceptions exist. First, when any patent owner has granted an exclusive license, he stands in a relationship of trust to his licensee and must permit the licensee to sue in his name. See *Independent Wireless Telegraph Co. v. Radio Corp. of Am.*, 269 U.S. 459, 469, 46 S.Ct. 166, 169–70, 70 L.Ed. 357 (1926). Second, the obligation may arise by contract among co-owners. If, by agreement, a co-owner waives his right to refuse to join suit, his co-owners may subsequently force him to join in a suit against infringers. See *Willingham v. Lawton*, 555 F.2d 1340, 1344–45, 194 USPQ 249, 252 (6th Cir.1977).
- 1 There may indeed be a need for determination of the respective interests of Dr. Yoon and Mr. Choi. Dr. Yoon's attempt to divide the '773 patent by reissue, although rebuffed by the Patent Office because of the ongoing litigation, would have placed the claims to which Mr. Choi contributed into a separate patent, in accordance with the practice when this patent application was filed. Dividing the patent claims would comport with common law practices. See *Real Property* ¶ 607[1] (discussing “inherent right to compel partition”, citing state laws); see, e.g., *Hamilton v. Hamilton*, 597 A.2d 856, 859–60 (Del.Fam.Ct.1990) (“right of the co-tenant to partition is almost absolute”).