

The Muddy Metaphysics of Joint Inventorship

By: Sharon Adams*

Introduction

Identifying the correct inventors on a patent is essential. Incorrect inventorship can be grounds to invalidate a patent if there has been deceptive intent in listing the inventors.¹ Likewise, inequitable conduct in omitting an inventor may render a patent unenforceable.² Furthermore, incorrect inventorship can hamper infringement litigation because an action for infringement of a patent must include as plaintiffs all of the owners of the patent. All inventors are co-owners unless there is an agreement assigning ownership rights to a third party. Therefore, if a patent owner brings an action for infringement and during litigation the court finds that an inventor has been omitted, the infringement action will not be allowed to proceed unless that omitted inventor joins as a plaintiff.³

Thus, correct inventorship is crucial for patent validity, enforceability, and for protecting the invention from infringement. Despite the critical importance of correct inventorship, the law regarding inventorship, and especially determining joint inventorship, is muddy.⁴

This article first discusses the general law regarding joint inventorship and then looks at some of the recent case law discussing joint inventorship.

Legal Standards for Inventorship

Actions to correct inventorship may be brought under 35 U.S.C. § 256.⁵ However, most of the case law involving joint inventorship stems from infringement

¹ *Jamesbury Corp. v. United States*, 518 F.2d 1384, 1395 (Ct. Cl. 1975) (inclusion of more or less than the true inventors renders patent void and invalid). *C.R. Bard, Inc. v. M3 Systems, Inc.*, 157 F.3d 1340, 1353 (Fed. Cir. 1998) (“To invalidate a patent based on incorrect inventorship it must be shown not only that the inventorship was incorrect, but that correction is unavailable under section 256”).

² *Frank’s Casing Crew & Rental Tools, Inc. v. Vincent*, 292 F.3d 1363, 1376 (Fed. Cir. 2002).

³ *Ethicon, Inc. v United States Surgical Corporation*, 135 F.3d 1456, 1467 (Fed. Cir. 1998) (“An action for infringement must join as plaintiffs all co-owners”).

⁴ *Mueller Brass Co., v. Reading Indus.*, 352 F.Supp. 1357, 1372 (E.D. Pa. 1972) *aff’d* 487 F.2d 1385 (3d Cir. 1973) (joint inventorship is “one of the muddiest concepts in the muddy metaphysics of the patent law”).

⁵ 35 U.S.C. § 256 states: “Whenever through error a person is named in an issued patent as the inventor, or through error an inventor is not named in an issued patent and such error arose without any deceptive intention on his part, the Director may, on application

litigation. Often, the alleged infringing party challenges the inventorship as part of its defense. When inventorship is challenged during litigation, courts frequently begin by stating the presumption that inventorship on issued patents is correct.⁶ Accordingly, any change in inventorship must be proven by clear and convincing evidence.⁷ Thus, in looking at the case law, there may be situations where a person could be an inventor but the court holds that he or she is not because of lack of clear and convincing corroborating evidence.

The legal basis for joint inventorship is found in 35 U.S.C. section 116, which states, in part:

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.

Thus, a person may be a joint inventor if they make a contribution to a single claim. The question is: what type or amount of “contribution” qualifies a person to be a *bona fide* inventor of a US patent?

Although the question of inventorship is a question of law that the appellate court will review *de novo*,⁸ “[t]he determination of whether a person is a joint inventor is fact specific, and no bright-line standard will suffice in every case.”⁹

An analysis of joint inventorship begins with an analysis of inventorship itself. In order to be an inventor, the person must have *conceived* of the invention as that word is used in patent law. “Because conception is the touchstone of inventorship, each joint inventor must generally contribute to the conception of the invention.”¹⁰ Although conception is somewhat vague, various courts have defined the term. “Conception is the formation in the mind of the inventor, of a definite and permanent idea of the complete

of all the parties and assignees, with proof of the facts and such other requirements as may be imposed, issued a certificate correcting such error.”

⁶ *Fina Oil and Chemical Co., v. Ewen*, 123 F.3d 1466, 1472 (Fed. Cir. 1997); *see also* 35 U.S.C. § 282 (“A patent is presumed valid”).

⁷ *Fina Oil*, 123 F.3d at 1472 (Fed. Cir. 1997); *see also Hess v. Advanced Cardiovascular Sys., Inc.*, 106 F.3d 976, 980 (Fed. Cir. 1997) (“[T]he burden of showing misjoinder or non-joinder of inventors is a heavy one”).

⁸ *Ethicon, Inc. v. U.S. Surgical Corp.*, 135 F.3d 1456, 1460 (Fed. Cir. 1998).

⁹ *Fina Oil*, 123 F.3d at 1473.

¹⁰ *Ethicon*, 135 F.3d at 1460, 45 USPQ2d at 1548 (citation and internal quotation marks omitted).

and operative invention, as it is hereafter to be applied in practice.”¹¹ “Conception is complete when one of ordinary skill in the art could construct the apparatus without unduly extensive research or experimentation.”¹² An inventor may solicit the assistance of others when perfecting the invention, without losing any patent rights.¹³ However, the basic exercise of ordinary skill in the art, without an inventive act, does not make one a joint inventor.¹⁴

Because a person may be a joint inventor by making a contribution to a single claim, inventorship is determined on a claim-by-claim basis.¹⁵ Thus, analysis of inventorship begins with a construction of each asserted claim to determine the subject matter of the claim.¹⁶ The next step is to compare the alleged contributions of each asserted co-inventor with the subject matter of the properly construed claim to then determine whether the correct inventors were named.¹⁷

Three Cases Discussing Joint Inventorship

In order to be a joint inventor, a person must contribute in some significant manner to the conception of an invention claimed in at least one claim.¹⁸ What does this mean in practical terms? The following cases give some insight into this.

In *Hess v. Advanced Cardiovascular Systems, Inc.*, 106 F.3d 976 (Fed. Cir. 1997), two doctors invented a medical device, a balloon angioplasty catheter that is inserted into a patient’s blocked artery. In developing their invention, the doctors had some difficulty with the material being used for the balloon. They sought advice from a technical liaison at Raychem, Mr. Hess. Hess suggested a certain material that the doctors used in the invention. The invention issued to a patent that was owned by ASC. After the patent issued, ASC filed an infringement lawsuit against another company, and not surprisingly, that company sought to invalidate the patent by claiming that the inventorship was incorrect because Hess was not named as an inventor.

¹¹ *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1376, (Fed. Cir. 1986) (citation and internal quotation marks omitted).

¹² *Sewall v. Walters*, 21 F.3d 411, 415 (Fed. Cir. 1994). Conception in chemistry and biology is somewhat different, and requires knowledge of both the specific chemical structure of the compound and the operative method of making it. *Burroughs Wellcome Co., v. Barr Labs., Inc.*, 40 F.3d 1223, 1229 (Fed. Cir. 1994).

¹³ *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 624 (Fed. Cir. 1985).

¹⁴ *Fina Oil*, 123 F.3d at 1473.

¹⁵ *Ethicon*, 135 F.3d at 1460.

¹⁶ *Frank’s Casing Crew*, 292 F.3d at 1373.

¹⁷ *Ethicon*, 135 F.3d at 1462.

¹⁸ *Frank’s Casing Crew*, 292 F.3d at 1373; *see also Fina Oil*, 123 F.3d at 1473.

The record was clear that the doctors followed some of Hess's suggestions and used the material he suggested. It was also clear that prior to meeting Hess, the doctors had unsuccessfully tried several other materials. The court noted that inventors are allowed to obtain information from books, and to consult with persons skilled in the art. The court stated that 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."¹⁹ Because Hess "did no more than a skilled salesman would do in explaining how his employer's product could be used to meet a customer's requirements" he was not an inventor.²⁰ Hess only provided the doctors with information that was readily available to those skilled in the art.

In *Ethicon v. U.S. Surgical Corporation*, 135 F.3d 1456 (Fed. Cir. 1998), the court found that contribution to two independent claims, out of 55 total claims, rendered Mr. Choi a co-inventor. The patent at issue was for a surgical trocar, a device that is used to pierce the body cavity during surgery. The invention consisted of an improvement that prevented the blade from cutting organs after passing through the body wall. The first claim at issue claimed a trocar with a shaft, a blunt probe, and an aperture in the blade through which the blunt probe passed. The court construed the claim and found that Choi showed, by clear and convincing evidence (which consisted of drawings) that he had conceived of the blunt probe passing through the aperture. The court conducted the same analysis of the other claim at issue and again found that Choi was an inventor.

Acromed Corporation v. Sofamor Danek Group, Inc., 253 F.3d 1371 (Fed. Cir. 2001) is an interesting case for looking at what constitutes a significant contribution to a claimed invention. The patent in *Acromed* was another medical device, a plate and screw system used in spine straightening operations. The doctor/inventor used the services of a machinist to test and develop the product. The doctor asked the machinist to design a plate so that retaining nuts would sink in and remain in place. The doctor agreed that the machinist conceived of the idea of using nested slots, and this idea was used and claimed in the patent.

The court noted that "[b]eyond conception, a purported inventor must show that he made a contribution to the claimed invention that is not insignificant in quality, when that contribution is measured against the dimension of the full invention, and did more than merely explain to the real inventors well-known concepts and/or the current state of the art."²¹ The court stated that nested slots were not an inventive conception; the machinist simply did the work of a machinist skilled in the art in solving the problem

¹⁹ *Hess v. Advanced Cardiovascular Systems, Inc.*, 106 F.3d 976, 981 (Fed. Cir. 1997), quoting *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 624 (Fed. Cir. 1985).

²⁰ *Hess*, 106 F.3d 976 at 981.

²¹ *Acromed Corporation v. Sofamor Danek Group, Inc.*, 253 F.3d 1371, 1379 (Fed. Cir. 2001) (internal quotations marks and citation omitted).

presented by the doctor. The court reviewed the prosecution history to determine if the nested slots were essential to patentability, and concluded they were not. Thus, the court concluded that the machinist was not an inventor.

Conclusion

As patent attorneys and agents we will almost certainly be called upon to give our opinion regarding who should be included as an inventor on a patent application. As explained above, incorrect inventorship can have serious consequences. Accordingly, our goal should always be to ensure that inventorship is correct. However, there will inevitably be cases in the gray area, where even experienced practitioners may have difficulty in definitively identifying joint inventors. In those cases, the practitioner must make his or her best judgment on inventorship, while remembering that, if necessary, inventorship may be corrected as long as there was no deceptive intent.

In making inventorship determinations, the practitioner should remember that most inventorship disputes arise through infringement litigation, and most of the challenges to inventorship involve someone who claimed to have been incorrectly *excluded*.

Proving that inventorship was incorrect through a contested litigation must be proven by clear and convincing evidence. This burden of proof favors including questionable inventors rather than excluding them. An inventor who was improperly included would have to prove by clear and convincing evidence that he or she was not an inventor. Given human nature, it is almost impossible to image the questionable inventor testifying strongly that he or she was not an inventor, and did nothing important to contribute to the invention.

Thus, the patent practitioner should use the principles of conception and contribution to an invention in determining joint inventorship. The practitioner should not include persons for “prestige” purposes because, in the worst case, this could be considered deceptive intent regarding inventorship and render the patent invalid. Finally, if after applying the principles of conception and contribution the practitioner is still unable to absolutely determine inventorship, it may make sense to err on the side of including the questionable inventor.

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