

**United States Court of Appeals  
for the Federal Circuit**

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**PEI-HERNG HOR,**  
*Plaintiff-Appellant,*

**and**

**RULING MENG,**  
*Plaintiff-Appellant,*

**v.**

**CHING-WU “PAUL” CHU,**  
*Defendant-Appellee.*

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2011-1540

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Appeal from the United States District Court for the Southern District of Texas in case no. 08-CV-3584, Judge Keith P. Ellison.

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Decided: November 14, 2012

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JOE W. BEVERLY, Dow Golub Remels & Beverly, LLP, of Houston, Texas, argued for plaintiff-appellant Pei-Herng Hor. Of counsel on the brief was WILLIAM P. JENSEN, Crain Caton & James, of Houston, Texas.

BRENT C. PERRY, Law Office of Brent C. Perry, of Houston, Texas, argued for plaintiff-appellant, Ruling Meng. Of counsel on the brief was GORDON G. WAGGETT, Gordon G. Waggett, P.C., of Houston, Texas.

LESTER L. HEWITT, Akin Gump Strauss Hauer & Feld LLP, of Houston, Texas, argued for defendant-appellee. With him on the brief was REHAN M. SAFIULLAH.

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Before NEWMAN, PROST, and REYNA, *Circuit Judges*.

Opinion for the court filed by *Circuit Judge* PROST.

Concurring opinion filed by *Circuit Judge* REYNA.

PROST, *Circuit Judge*.

Appellants Pei-Herng Hor (“Hor”) and Ruling Meng (“Meng”) filed this suit against Appellee Ching-Wu Chu (“Chu”) under 35 U.S.C. § 256 for correction of inventorship of U.S. Patent Nos. 7,056,866 (“866 patent”) and 7,709,418 (“418 patent”). The district court granted Chu’s motion for summary judgment, finding that Hor’s and Meng’s claims were barred by laches or, alternatively, by equitable estoppel. For the reasons set forth below, we affirm in part, reverse in part, vacate in part, and remand for further proceedings consistent with this opinion.

## I. BACKGROUND

The facts of this case, including the underlying technology, are thoroughly detailed in the district court’s summary judgment opinion, *Hor v. Chu*, 765 F. Supp. 2d 903 (S.D. Tex. 2011). We accordingly limit our discussion to those facts that are relevant to the current appeal.

Hor and Meng claim that they are joint inventors of the '866 and '418 patents. Hor and Meng worked with Chu in the physics research lab at the University of Houston, performing research related to high temperature superconducting compositions. *Id.* at 906. Chu was a professor of physics, Hor was a graduate student and one of Chu's research assistants, and Meng worked in Chu's research group as an independent materials scientist. *Id.*

The '866 and '418 patents at issue in this inventorship dispute generally relate to superconducting compositions with transition temperatures higher than the boiling point of liquid nitrogen. The '866 patent is titled "Superconductivity in Square-Planar Compound Systems." It was filed on March 26, 1987, and issued on June 6, 2006. The '418 patent is titled "High Transition Temperature Superconducting Compositions." It was filed on January 23, 1989, and issued on May 4, 2010. The compositions claimed in the '866 and '418 patents were conceived between November 1986 and March 1987, and Chu is the sole named inventor on both patents. *Id.*

In December 2008, Hor filed a complaint against Chu, asserting a claim for correction of inventorship of the '866 patent under 35 U.S.C. § 256. In March 2010, the district court granted Meng's motion to intervene to assert her own § 256 claim against Chu. In June 2010, shortly after the '418 patent issued, Hor and Meng filed motions for leave to amend their complaints to add a § 256 inventorship claim with respect to the '418 patent, which the district court granted.

Chu moved for summary judgment that Hor's and Meng's § 256 claims were barred by laches because Hor and Meng knew or should have known by as early as 1987

that they were not named inventors on the patent applications that ultimately issued as the '866 and '418 patents. The district court agreed that laches barred the inventorship claims. According to the district court, Hor's and Meng's inventorship claims arose before the patents issued, and they knew or should have known of their claims by the early 1990s at the latest. *Hor*, 765 F. Supp. 2d at 918. Because Hor did not file suit until 2008 and Meng did not intervene until 2010, the court concluded that a presumption of laches attached to their claims and that neither Hor nor Meng sufficiently rebutted that presumption. *Id.* at 918-20. The district court additionally entered judgment in favor of Chu on Hor's and Meng's unclean hands defense.<sup>1</sup> *Id.* at 920-22. In the alternative, the district court *sua sponte* determined that the inventorship claims were barred by equitable estoppel. Hor and Meng have appealed, and we have jurisdiction under 28 U.S.C. § 1295(a).

## II. DISCUSSION

On appeal, Hor and Meng challenge the district court's finding that their inventorship claims were barred either by laches or, alternatively, by equitable estoppel. Additionally, Meng appeals the district court's entry of judgment in favor of Chu on Meng's unclean hands defense. We address each issue in turn.

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<sup>1</sup> In the district court, Chu moved for either a dismissal of the unclean hands defenses under Federal Rule of Civil Procedure 12(b)(6) for failure to state a claim or, alternatively, for summary judgment under Federal Rule of Civil Procedure 56. Although the district court's Final Judgment "dismissed" these defenses, from what we can discern from the district court's opinion, the court appears to have resolved this issue under Rule 56.

### A. Laches

To prevail on a defense of laches, a defendant must establish that (1) the plaintiff's delay in filing a suit was "unreasonable and inexcusable," and (2) the defendant suffered "material prejudice attributable to the delay." *A.C. Aukerman v. R.L. Chaides Constr. Co.*, 960 F.2d 1020, 1028 (Fed. Cir. 1992). For inventorship claims under § 256, a delay of six years after a claim accrues creates a rebuttable presumption of laches. *Advanced Cardiovascular Sys. v. SciMed Life Sys.*, 988 F.2d 1157, 1163 (Fed. Cir. 1993). When reviewing a laches decision rendered on summary judgment, this court reviews for an abuse of discretion unless genuine issues of material fact preclude summary judgment. *Ultimax Cement Mfg. Corp. v. CTS Cement Mfg. Corp.*, 587 F.3d 1339, 1349 (Fed. Cir. 2009) ("[I]f genuine issues of material fact preclude summary judgment of laches, 'we need not apply [the abuse of discretion] standard[] of review' that generally applies to laches." (quoting *Wanlass v. Fedders Corp.*, 145 F.3d 1461, 1463 (Fed. Cir. 1998))) (second and third alterations in original); see also *Aukerman*, 960 F.2d at 1039 ("[T]he standard of review of the conclusion of laches is abuse of discretion.").

On appeal, Hor and Meng argue that the district court erred in finding that their inventorship claims accrued before the '866 and '418 patents issued. According to Hor and Meng, because a 35 U.S.C. § 256 cause of action does not arise until the patent issues, the laches clock accordingly cannot begin to run prior to issuance. Here, because Hor and Meng filed suit within six years of the issuance of the '866 and '418 patents, they contend that a presumption of laches should not apply. Chu, in contrast, maintains that the laches period can begin pre-patent issuance, where, as here, the purported inventors knew or

should have known of the potential inventorship dispute before the patent issued.

We agree with Hor and Meng. Section 256 creates a private cause of action to correct inventorship in an issued patent:

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

The error of omitting inventors or naming persons who are not inventors shall not invalidate the patent in which such error occurred if it can be corrected as provided in this section. The court before which such matter is called in question may order correction of the patent on notice and hearing of all parties concerned and the Director shall issue a certificate accordingly.

35 U.S.C. § 256 (2006) (emphasis added).

In *Aukerman*, this court applied the six-year presumption of laches to a patentee's claim of infringement, holding that the laches clock did not start to run—at the earliest—until the patent issued:

The period of delay is measured from the time the plaintiff *knew or reasonably should have known* of the defendant's alleged infringing activities to the date of suit. *However, the period does not begin prior to issuance of the patent.*

960 F.2d at 1032 (emphases added).

*Advanced Cardiovascular* adopted *Aukerman*'s six-year laches presumption for § 256 correction of inventorship claims and held that the laches period began when “the omitted inventor knew or should have known of the issuance of the patent.” 988 F.2d at 1163. *Advanced Cardiovascular*, however, did not address the precise question presented here: Does the laches period for a § 256 claim begin to run before a patent issues when the omitted inventors knew or should have known prior to patent issuance that their names were omitted from the patent application? We conclude that the answer is no.

A § 256 claim for correction of inventorship does not accrue until the patent issues. The reason is simple: that is what the language of the provision requires. § 256 (“Whenever through an error a person is named in an *issued patent* as the inventor, or through error an inventor is not named in an *issued patent* . . . .”) (emphases added); *see also HIF Bio, Inc. v. Yung Shin Pharms. Indus. Co.*, 600 F.3d 1347, 1354 (Fed. Cir. 2010) (“Once a patent issues, . . . 35 U.S.C. § 256 provides a private right of action to challenge inventorship . . . .”). Under well-established laches principles, “[a] cause of action cannot be barred by laches before it accrues; it is never extinct when it comes into existence.” *Davidson v. Grady*, 105 F.2d 405, 412 (5th Cir. 1939); *see also Lamb v. Powder River Live Stock Co.*, 132 F. 434, 443 (8th Cir. 1904) (“Nothing could be more unreasonable or more certainly violative of constitutional prohibitions than to bar rights of action because of the lapse of time prior to their accrual, when they could not have been exercised.”).

Here, the district court found that the laches period for Hor’s and Meng’s § 256 claims started to run pre-

patent issuance—i.e., before the § 256 claims actually accrued—because Hor’s and Meng’s inventorship claims were not cabined to a claim under § 256. Instead, relying on the potential availability of certain procedures to correct inventorship while a patent application is still pending before the U.S. Patent and Trademark Office (“PTO”)—namely, petitioning for correction of inventorship under 35 U.S.C. § 116 or initiating a 35 U.S.C. § 135 interference proceeding—the district court determined that the laches period for inventorship claims begins “when a plaintiff knew or should have known that the defendant filed a patent application covering his alleged inventive contributions and failed to name him as an inventor, regardless of whether such notice occurred prior to the patent’s issuance.” *Hor*, 765 F. Supp. 2d at 916. The district court apparently found that §§ 116 and 135 proceedings were adequate substitutes for a § 256 inventorship claim such that the failure to seek a correction of inventorship pursuant to one of those statutory provisions prior to patent issuance could prevent an omitted inventor from later bringing a § 256 claim. We disagree.

Nothing in the plain language of § 256 or the accompanying regulations<sup>2</sup> indicates that the failure to challenge inventorship before the PTO can potentially bar an inventor from later contesting inventorship under § 256. And imposing such a limitation runs afoul of our instruction that § 256 be “interpreted . . . broadly” to protect the “public interest of assuring correct inventorship designations on patents.” *Chou v. Univ. of Chi.*, 254 F.3d 1347, 1358 (Fed. Cir. 2001).

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<sup>2</sup> The regulation implementing 35 U.S.C. § 256 is 37 C.F.R. § 1.324.

Moreover, the specific procedural rules governing §§ 116 and 135 further convince us that the district court's reliance on these purported alternative remedies to support its laches analysis was misplaced. With respect to § 116, for example, Chu does not dispute that inventorship correction under this provision requires consent of all the parties. Chu Supp. Br. 6; *see also* 37 C.F.R. § 1.48. In this case—as in most § 256 cases brought by an omitted inventor—Hor's and Meng's inventorship is contested. Thus, § 116 likely was not an available avenue for Hor and Meng to correct their omitted inventorship while the applications for the '866 and '418 patents were pending before the PTO.

Regarding interferences, § 135(b)(1) allows for an interference challenging an issued patent if the claim provoking the interference was made within one year of the challenged patent's issuance.<sup>3</sup> Because a party can provoke an interference *post-issuance* of the challenged patent, the availability of an interference proceeding does not persuade us that a § 256 claim can accrue *pre-issuance* for laches purposes.<sup>4</sup>

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<sup>3</sup> While the underlying patent applications were pending before the PTO, in 1999 Congress amended 35 U.S.C. § 135 to divide original paragraph (b) into paragraphs (b)(1) and (b)(2). Consolidated Appropriations Act of 2000, Pub. L. No. 106-113, § 1000 (a)(9), 113 Stat. 1501 (1999). Post-amendment paragraph (b)(1) corresponds with pre-amendment § 135(b). Paragraph (b)(2) “creates a one year bar relative to published patent applications.” *Regents of the Univ. of Cal. v. Univ. of Iowa Research Found.*, 455 F.3d 1371, 1374 n.1 (Fed. Cir. 2006).

<sup>4</sup> We additionally note that prior decisions of this court have treated a § 256 claim as an available alternative to an interference proceeding, even when the omitted inventor declined to initiate an interference

Finally, while we recognize that the prompt resolution of inventorship disputes certainly is a desirable goal, there may be circumstances in which it would be inefficient to require an omitted inventor to initiate an inventorship dispute while the application is still pending. Throughout the back-and-forth negotiation between the patentee and the PTO examiner, the original claims are routinely narrowed or even cancelled. Thus, in many cases, an omitted inventor may not know whether he or she has a cognizable inventorship claim until the examination concludes and the patent finally issues.

Accordingly, for these reasons, we continue to apply the general rule set forth in *Advanced Cardiovascular* and hold that the laches period for a § 256 correction of inventorship claim begins to run when “the omitted inventor knew or should have known of the issuance of the patent,” regardless of whether the omitted inventor knew or should have known of the omitted inventorship while the patent application was pending before the PTO. Here, Hor and Meng filed their claims within six years of the issuance of the ’866 and ’418 patents; the district court, therefore, legally erred in finding that a presumption of laches attached to these claims. The district court’s judgment in favor of Chu based on the affirmative defense of laches consequently is reversed.

#### B. Unclean Hands Doctrine

Under the unclean hands doctrine, “a [plaintiff] may be able to preclude application of the laches defense with proof that the [defendant] was itself guilty of misdeeds

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despite knowledge that the challenged application was pending before the PTO. *See Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1368 (Fed. Cir. 2004).

towards the [plaintiff].” *Aukerman*, 960 F.2d at 1038. “[I]n the context of an inventorship action, a plaintiff relying on the unclean hands doctrine to defeat a defense of laches must show not only that the defendant engaged in misconduct, but moreover that the defendant’s misconduct was responsible for the plaintiff’s delay in bringing suit.” *Serdarevic v. Advanced Med. Optics, Inc.*, 532 F.3d 1352, 1361 (Fed. Cir. 2008).

Here, Meng appeals the district court’s judgment in favor of Chu with respect to her unclean hands defense. According to Meng, unclean hands bars Chu’s laches defense because Chu’s attorney, Charles Cox, allegedly failed to inform Meng that her former co-worker, M.K. Wu, placed Meng’s inventorship of the ’866 patent at issue during an interference proceeding before the PTO. Meng alleges that Cox’s actions caused her to delay in bringing her inventorship claims. The district court rejected this defense finding that (1) Meng failed to cite any authority supporting the proposition that the conduct of someone other than the defendant could support an unclean hands claim or that Cox had a duty to inform Meng of Wu’s allegations; (2) Cox’s alleged actions were not egregious; and (3) Meng did not explain how she would have acted differently had Cox actually informed her of Wu’s assertions. The court concluded that “Meng’s allegations against Cox do not rise to the level of egregious conduct that would change the equities significantly in her favor.” *Hor*, 765 F. Supp. 2d at 922.

On appeal, Meng provides no authority that Cox’s actions can be imputed to Chu nor does she cite to any evidence that she relied on Cox’s alleged actions in not asserting her inventorship rights sooner. Instead, she provides only the conclusory assertion that “[t]here is certainly a genuine issue of material fact as to whether

the failure to inform Meng that her inventorship was at issue delayed her bringing this suit and substantially changed the equities in favor of Chu.” Meng’s Br. 25. Unclean hands is an equitable defense within the sound discretion of the district court, *Princess Cruises, Inc. v. United States*, 397 F.3d 1358, 1369 (Fed. Cir. 2005) (“The trial court has broad discretion under the doctrine of unclean hands.”), and in this case we see no reason to disturb the district court’s decision.

### C. Equitable Estoppel

In addition to determining that Hor’s and Meng’s claims were barred by laches, the district court, in the alternative, *sua sponte* found that Hor’s and Meng’s inventorship claims were barred by equitable estoppel. We conclude that this was error. Chu did not assert equitable estoppel as an affirmative defense in his answer, nor did he present this theory to the district court in his motion for summary judgment. Estoppel, however, is an affirmative defense that must be pled, Fed. R. Civ. P. 8(c)(1) (“In responding to a pleading, a party *must affirmatively state* any avoidance or affirmative defense, including . . . estoppel . . . .”) (emphasis added), and the failure to plead it can result in waiver, *Davis v. Huskiper Outdoor Equip. Corp.*, 936 F.2d 193, 198 (5th Cir. 1991) (“[A]n affirmative defense is waived unless pleaded by the defendant.”). In the Fifth Circuit, whose law we apply to this procedural issue, “an affirmative defense . . . generally should not [be] raised *sua sponte*.” *Kiser v. Johnson*, 163 F.3d 326, 328 (5th Cir. 1999) (quoting *Warnock v. Pecos Cnty., Tex.*, 116 F.3d 776, 778 (5th Cir. 1997)) (alterations in original); *see also United States v. Mitchell*, 518 F.3d 740, 745 (10th Cir. 2008) (“[C]ourts generally may not raise affirmative defenses *sua sponte* . . . .”). Moreover, although a district court certainly has the

discretion to *sua sponte* grant summary judgment, it nevertheless must afford the losing party notice. *Tolbert v. Nat'l Union Fire Ins. Co.*, 657 F.3d 262, 271 (5th Cir. 2011) (“[W]e have vacated summary judgments and remanded for further proceedings where the district court provided no notice prior to granting summary judgment *sua sponte*, even where summary judgment may have been proper on the merits.” (quoting *Leatherman v. Tarrant Cnty. Narcotics Intelligence & Coordination Unit*, 28 F.3d 1388, 1398 (5th Cir. 1994))); *see also Am. Flint Glass Workers Union v. Beaumont Glass Co.*, 62 F.3d 574, 578 n.5 (3d Cir. 1995) (“[O]rders granting summary judgment *sua sponte* endanger important rights and, unless waived . . . , are likely to result in judicial inefficiency and deprivation to the rights of one of the parties.”). For these reasons, we conclude that the district court erred in *sua sponte* granting summary judgment based on the affirmative defense of equitable estoppel in light of Chu’s failure to assert that defense against Hor and Meng. The district court’s judgment with respect to equitable estoppel accordingly is vacated.

### III. CONCLUSION

In sum, the district court’s judgment in favor of Chu on his laches defense is reversed; the judgment in favor of Chu with respect to Meng’s unclean hands defense is affirmed; and the judgment in favor of Chu based on equitable estoppel is vacated. The case is remanded to the district court for further proceedings consistent with this opinion.

**AFFIRMED-IN-PART, REVERSED-IN-PART,  
VACATED-IN-PART, AND REMANDED**

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2011-1540

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Appeal from the United States District Court for the Southern District of Texas in case no. 08-CV-3584, Judge Keith P. Ellison.

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REYNA, *Circuit Judge*, concurring.

I agree with the majority that the presumptive six-year period for laches on a claim to correct inventorship under 35 U.S.C. § 256 does not begin to run before the patent issues, even when the omitted inventor knew or should have known of the omitted inventorship while the patent application was pending before the PTO.

Prior to enactment of § 256 in the Patent Act of 1952, the various circuit courts grappled with the inflexible rule that incorrect inventorship invalidated the patent. When juxtaposed against the vexing question raised when the patent was the work of several inventors acting jointly, the rule presented questions acknowledged as “not free from difficulty.” *Iowa State Univ. Research Found., Inc. v. Sperry Rand Corp.*, 444 F.2d 406, 408 (4th Cir. 1971); *see also Shreckhise v. Ritchie*, 160 F.2d 593, 595 (4th Cir. 1947) (“[W]hen a patent is issued to one person for something which was jointly invented by several the patent is invalid.”); *William R. Thropp & Sons, Co. v. De Laski & Thropp Circular Woven Tire Co.*, 226 F. 941, 947 (3d Cir. 1915) (“A patent for an invention claimed to be the joint conception or invention of two, when in truth it is the separate invention of but one, cannot be issued to both, or, if issued, is void as to both.”); *Tin Decorating Co. v. Metal Package Corp.*, 37 F.2d 5, 7 (2d Cir. 1930).

Congress enacted § 256 to provide relief against the hardship (invalidation) brought on by mistake of inventorship. The legislative history is scant, but Senate and House reports contain nearly identical language that notes a correlation between 35 U.S.C. § 116<sup>1</sup> and § 256. Section 256 operates to permit “a bona fide mistake in

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<sup>1</sup> In the pertinent part, 35 U.S.C. § 116 provides: “Whenever through error a person is named in an application for patent as the inventor, or through error an inventor is not named in an application, the Director may permit the application to be amended accordingly, under such terms as he prescribes.” *Id.* By its reference to “an application,” § 116 is limited to applications pending at the PTO. The regulation enforcing it, 37 C.F.R. § 1.48, likewise implicitly makes clear that that the remedy under § 116 is only available upon agreement of all the parties. *See* 37 C.F.R. § 1.48(a)(1); *see also* 37 C.F.R. § 1.76(e).

joining a person as an inventor or in failing to join a person as an inventor to be corrected.” S. Rep. No. 82-1979, at 7 (1952); H.R. Rep. No. 82-1923, at 9 (1952). Unlike § 116, which specifies that the Director may permit the patent application to be amended “under such terms as he prescribes,” § 256 contains the imperative that, upon an order from a court after notice and hearing of all parties concerned, “the Director *shall* issue a certificate [correcting inventorship].” *Compare* 35 U.S.C. § 116(c), *with* 35 U.S.C. § 256(b) (emphasis added).

In his commentaries on the 1952 Patent Act, P.J. Frederico observed that concurrence of all the parties was required to correct misjoinder or nonjoinder at the PTO under both § 116 and § 256. P.J. Frederico, *Commentary on the New Patent Act*, 35 U.S.C.A., p. 1, at 27–28, 50 (1954). The final paragraph of § 256 was enacted to permit courts to correct mistakes of inventorship absent such consent. *Id.* at 50 (“If [the parties] do not concur, the correction can only be made on order of a court as provided in the third paragraph.”); *see also Sperry Rand*, 444 F.2d at 408–09 (recognizing that although not part of the legislative history, “Federico’s Commentary is entitled to the weight ordinarily accorded an acknowledged authority in his field”).

The Fourth Circuit in *Sperry Rand* observed:

The distinction which Frederico noted between the power of the Commissioner, who can correct a patent only on consent of all parties, and that of a court, which can act without consent, has a rational foundation. Patents “have the attributes of personal property.” 35 U.S.C. § 261; *see* 4 Deller’s, Walker on Patents 41 (2d ed. 1965). After the issuance of a patent, the Commissioner lacks juris-

diction over it save in interference proceedings, where the right of judicial review is assured. 35 U.S.C. §§ 141, 146. The patentee has a vested property right that can be canceled, revoked, or annulled only by judicial proceedings that afford due process of law.

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These well-established principles underlie the limitation that Congress placed on the Commissioner but not on the courts.

444 F.2d at 409.

Because the final paragraph of § 256 was enacted to provide specific judicial relief on issues of inventorship without a concurrence by all parties, I agree with the majority that a discovery standard for laches is inappropriate because it would obviate the judicial remedy under § 256. This is especially true since § 256 is a remedial statute, meaning it was enacted to provide a specific form of relief. *See generally Sperry Rand*, 444 F.2d 406.

I diverge from the majority, however, when it reasons, “while . . . prompt resolution of inventorship disputes certainly is a desirable goal, there may be circumstances in which it would be inefficient to require an omitted inventor to initiate an inventorship dispute while the application is still pending.” Maj. Op. at 10. There is no doubt that prompt resolution of inventorship disputes is a desirable goal. But the “inefficien[cy]” that the majority identifies as competing with that goal—requiring an omitted inventor to initiate an inventorship dispute while the application is pending when a narrowing amendment could still affect that inventorship claim—is inconsistent

with the desirability and efficiency wrought by prompt resolution of inventorship issues. *See id.* If claims are narrowed or even canceled during examination, the scope of the patent becomes narrower, not broader. Shrinking patent scope does not necessarily give rise to previously nonexistent inventorship claims. Since an omitted inventor would know whether he or she has a cognizable inventorship claim from the very beginning, there is no rational reason to wait until the patent issues to assert a claim for inventorship.

I believe the differences between § 116 and § 256 create a potential incentive to *not* challenge inventorship until the patent issues notwithstanding actual knowledge of the omission by an omitted inventor. Without a threat of laches that would bar a § 256 claim to correct inventorship within a specific time period beginning with the date the omitted inventor is shown to have known of the omission, the omitted inventor is encouraged to remain silent as the applicant bears the costs of prosecution and garners potentially lucrative licenses. Then, once the patent issues, the omitted inventor can claim entitlement to the fruit of applicant's labors.

While the application is non-final and undergoing examination, the PTO is well positioned to correct inventorship errors. *See, e.g.*, 35 U.S.C. §§ 116; 135(a); 37 C.F.R. § 1.48. Allowing omitted inventors to forego efficient PTO inventorship correction processes needlessly burdens the courts and weighs heavily on the patent system. Properly understood, I believe policy considerations support a conclusion contrary to the statutorily required one we reach today, but it is up to Congress, not this court, to amend the statute accordingly.