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SELLER BEWARE: THE SCOPE OF THE ON SALE BAR AFTER PFAFF V. WELLS

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I. Introduction

Inventor Arnold enters an agreement with New Technologies to research and develop a new computer chip design—although Arnold has a few good ideas, he is not sure which, if any, will actually work and needs time and money to test them. Inventor Betty, meanwhile, enters an agreement with New Technologies to provide a new machine to process computer chips. Unlike Arnold, Betty has already developed and successfully tested a prototype of the machine. Before filing a patent application, however, both Arnold and Betty decide to wait more than one year after signing their contracts with New Technologies. Should either of them now be prevented from obtaining a patent because they delayed applying for one, given the statutory and policy considerations for patent protection?

For Arnold, the on sale bar should not apply if, as is the case, the patent law does not wish to discourage the development of new inventions.¹ In contrast, the on sale bar should apply for Betty if, as is the case, the patent law hopes to encourage potential applicants to apply for patents as soon as possible and disclose completed ***404** inventions publicly, rather than delay applying while profiting from the invention.² As a compromise, the Patent Act provides a one year grace period after the commercial sale of a completed invention within which to file a patent application for the invention.³ The difficulty in “on sale” cases arises, however, in situations where it is not clear whether a given invention was “completed” at the time of the sale, and courts have attempted to determine what level of completeness is sufficient to trigger the on sale bar. Over the years, at least three tests have been used to define when an invention is “completed,” after which any sales of the invention trigger the one year grace period.

Most recently, the Supreme Court addressed the issue in *Pfaff v. Wells*,⁴ a case decided under Section 102(b) on facts that fell

somewhere in between the examples of Arnold and Betty. The Supreme Court introduced yet another standard, the “ready for patenting” test.⁵ Because the Supreme Court so rarely accepts patent cases, the binding precedent will likely stand for some time. But the scope of the test is not quite clear. In this article, therefore, I propose a modification of the test that would remain entirely consistent with the Supreme Court’s standard.

Part II of the article establishes the background of the triggering of the on sale bar. Part III includes a development of significant cases decided and the standards proposed before *Pfaff*, including the “reduction to practice” and the “totality of circumstances” tests. The *Pfaff v. Wells* case will be examined in Part IV, along with the new “ready for patenting” test and the “Bryson test.”⁶ Finally, in Part V, a new “able to reduce to practice” test is proposed by adding a modification to the Supreme Court’s on sale bar test.

II. Developing the Issue: The Role of the On Sale Bar in Patent Law

An inventor cannot obtain a patent for an invention that was either anticipated by or made obvious in light of previously available public material, such as printed publications or prior patents.⁷ A patent can also be barred, in some cases, because *405 the invention was previously used publicly or offered for sale.⁸ Patents that are issued despite these statutory bars may be invalidated in a reexamination or by accused infringers in an infringement suit.⁹ For any statutory bar challenge, though, the patent is presumed valid.¹⁰ Accordingly, a party challenging validity under Section 102 or 103 must establish the facts supporting invalidity by “clear and convincing” evidence.¹¹ Still, a determination of a barring sale is a question of law, reviewed on a *de novo* standard.¹²

Section 102, termed “Conditions for Patentability,” lists, in subsections (a) through (g) those events that bar the inventor from obtaining a patent.¹³ In the majority of invalidity cases, the invention is barred by the contributions of persons other than the inventor.¹⁴ But under Section 102(b), an invention can be barred even by the inventor’s own prior actions.¹⁵ Section 102(b) precludes a patent for an invention that “was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States.”¹⁶ Section 102(b) prevents an inventor from selling, or even offering for sale, an invention and then obtaining a patent more than one year after the sale or offer.¹⁷

The on sale bar has caused tremendous confusion and even the Federal Circuit has struggled to develop a clear and consistent standard. The less complicated issue in this area of law is whether a “sale” or “offer” was in fact made.¹⁸ The significantly more complicated issue, recently addressed by the Supreme Court in *Pfaff v. Wells*,¹⁹ concerns a standard for what stage of the inventor’s development process it may be said that an “invention” has been put on sale. The issue is a delicate one because an inventor should not be barred for offering for sale an idea or *406 concept that has not yet even been researched and in fact may take years to develop (an incomplete invention), but should be barred for selling a constructed and working embodiment (a completed invention). Put another way, the one year grace period should not serve as a time limit by which inventions must be completed after an inventor is first hired; rather, it should reflect a time limit within which an inventor must file a patent application after possessing a “completed” invention. Selling the invention more than one year before applying for a patent, therefore, has been viewed as an unlawful extension of the twenty year patent term.²⁰ Accordingly, there is a constitutional dimension to the statutory bar as well; the Constitution mandates that exclusive patent rights should be allowed only “for limited times.”²¹

Inventors that delay filing do extend the patent term, at least for those inventions that have already been “reduced to practice”—that have already been constructed and demonstrated to work for their intended purpose. The American system (under 35 U.S.C. Section 102(g)) grants priority of invention to the first inventor - the person that first conceives the invention and is able to, with diligence, reduce it to practice.²² In contrast, even if a non-applicant first conceives a novel idea, priority will still be given to the patent applicant if the applicant first reduced the idea to practice (actually or constructively by filing an application). Without the on sale bar, therefore, an inventor that has already reduced to practice a new invention could potentially delay applying for a patent, while profiting from the invention, until either a competitor develops the technology or another inventor attempts to patent it. In the case of an invention already reduced to practice, therefore, the on sale bar makes sense.

It is far from clear, however, to what degree the on sale bar should affect those inventors that have not yet reduced their inventions to practice. After all, the inventor that sells an invention that is not yet reduced to practice delays filing an application only at the risk that another inventor will file for a patent on the same technology first. The Assistant to the

Solicitor General himself recognized as much, during oral argument before the Supreme Court in *Pfaff*.²³ The moment the invention is in fact reduced to practice, however, the inventor should be required to file a patent application or lose the exclusive rights of patent protection.

*407 Of course, there will be some instances of commercialization where a product is not reduced to practice but easily could have been, thereby extending potential benefits of the patent system beyond the statutory grace period of one year. But there are still excellent reasons to advocate a reduction to practice requirement. First, the rule has the advantage of relative certainty; the bar simply would not begin before something tangible exists. Second, because commercialization typically requires reduction to practice at some stage, any delay is not likely to be very significant.²⁴ But, as will be discussed below, these advantages are realized only at the cost of subverting the policies justifying Section 102(b). And *Pfaff II* attempted to remedy the situation, but, as I will argue, did so incompletely. After a review of the case law to date, therefore, I will propose that a new “able to reduce to practice” test be used in order to preserve the statutory policy of avoiding unfair commercialization while minimizing limits on inventors to fully develop new ideas.²⁵

III. Case Law Prior to *Pfaff v. Wells*: “Reduction to Practice” and “Totality of the Circumstances”

The bare language of the on sale bar statute remains largely unchanged since the first legislation that explicitly enacted it in 1839.²⁶ Accordingly, to give the statute meaning, courts have had to interpret the language and develop standards judicially.²⁷ Guidance was especially needed regarding when an invention is sufficiently complete to trigger the on sale bar.²⁸ The spectrum could have ranged anywhere from the original conception of the invention triggering the bar (triggering as early as possible) to a requirement that only the actual delivery of a physical product embodying the invention triggers the bar (triggering late).²⁹

*408 Before the Federal Circuit (which now has exclusive jurisdiction over patent appeals) was created in 1982, the prevailing standard for what triggered the on sale bar consisted of a three part test reflected in the Second Circuit’s *Timely Products* opinion.³⁰ Under the first part of the test, the invention claimed in the patent had to be “embodied in or obvious in view of the thing offered for sale.”³¹ The second part of the test required that the invention was reduced to practice: “an invention cannot be offered for sale under 102(b) until it is completed, which requires not merely its conception but its reduction to practice.”³² The third part allowed for the sale of an invention for predominantly experimental purposes, in order to test the product sufficiently.³³

The first *Timely Products* element is still valid, and the product offered for sale must contain all elements of the invention claimed, or must render the claims obvious.³⁴ The third element also still applies, and experimental sales are excepted from the on sale bar.³⁵ Only the second has changed, and significantly, over the years since the influential *Timely Products* case. The reduction to practice test came to be defined as requiring both construction and demonstration that the invention worked for its intended purpose.³⁶

The *Timely Products* requirement of reduction to practice was initially questioned by the Federal Circuit in *Barmag Barmer*.³⁷ *Barmag* argued that its invention had not been reduced to practice by the date of the alleged sale, and so could not have triggered Section 102(b).³⁸ Citing a general notion of “statutory policy,” the court concluded that the reduction to practice requirement was too “restrictive in that an offer to sell, without the existence of a physical embodiment of what is offered, does not start the running of the time period.”³⁹ The statements *409 were dicta, however, because the district court in *Barmag* had found that *Barmag*’s sale met the narrower reduction to practice requirement.⁴⁰

Not until three years later, in the landmark *UMC Electronics* case, did the Federal Circuit advance an alternate standard.⁴¹ In that case, UMC had built and tested an engineering prototype before making a bid for a Navy project, but did not file for a patent until more than one year after the bid.⁴² UMC argued to the Federal Circuit that a complete embodiment had not yet been created, and that reduction to practice should be required before triggering the on sale bar.⁴³ After considering the purported policy considerations behind Section 102(b) and other relevant issues, the Federal Circuit proclaimed that “reduction to practice of the claimed invention has not been and should not be made an absolute requirement of the on sale bar.”⁴⁴ Reduction to practice prior to the sale date would still, of course, be relevant to a finding of invalidity.⁴⁵

The test proposed by the *UMC* court required consideration of “[a]ll of the circumstances surrounding the sale or offer to sell, including the stage of development of the invention and the nature of the invention ... weighed against the policies underlying Section 102(b).”⁴⁶ The policies most often cited are the following: (1) preventing removal of inventions from the public

domain; (2) encouraging timely disclosure of inventions; (3) preventing the inventor from commercially exploiting the invention beyond the statutory limit; all while (4) allowing the inventor a reasonable amount of time to determine the potential economic value of the invention.⁴⁷ By its own admission, though, the Federal Circuit did nothing more to clarify its new “totality of the circumstances” test: “t he above conclusion does not lend itself to formulation into a set of precise requirements such as that attempted by the *Timely Products* court.”⁴⁸ Moreover, *410 regarding the triggering issue itself, the court stated that it would “not attempt here to formulate a standard for determining when something less than a complete embodiment of the invention will suffice under the on sale bar.”⁴⁹ But at least on the facts before it, and considering the degree of testing and the significance of what had already been constructed, the *UMC* court was able to hold that UMC’s prototype was a “substantial embodiment” sufficient to trigger the bar.⁵⁰

Understandably, given the lack of clear guidance in *UMC*, confusion prevailed. In the year and half from October 1996 to March 1998, the Federal Circuit issued three opinions with apparently divergent standards regarding the triggering of the on sale bar. First, in *Seal-Flex*, the court stated that “[t]he general rule is that the on sale bar starts to accrue when a *completed invention* is offered for sale.”⁵¹ The invention in that case, an all-weather track, was found to be incomplete, for purposes of the on sale bar, because the track had not been tested under *all* weather conditions.⁵² For summary judgment purposes, the on sale bar trigger was delayed even though the track was already built.⁵³ This was so despite the fact that the inventor’s offer for sale was purely commercial; the sale itself was not intended for further experimentation.⁵⁴ In addition to its holding, the court also criticized a “sufficiently complete” standard, which the district court had used, because it would be “unworkable, for the inventor will not know, until informed by a judge, at what stage his experimental method became, with judicial insight based on hindsight, sufficiently complete to start the time bar to patentability.”⁵⁵

Despite the warning, the Federal Circuit did in fact adopt a “sufficiently complete” standard in *Micro Chemical, Inc. v. Great Plains Chemical Company, Inc.*⁵⁶ The invention in *Micro Chemical* consisted of multiple components.⁵⁷ At the *411 time of the sale, the inventor created a prototype of one element and a sketch of another, but he had difficulty combining the two until after the critical date.⁵⁸ The court responded with a modified standard: “a sale or definite offer to sell a *substantially completed* invention, with reason to expect that it would work for its intended purpose upon completion, suffices to generate a statutory bar.”⁵⁹ Accordingly, since the development at the time of the sale did not embody all of the claimed elements, successfully combined, the court found the invention was not substantially complete, and therefore delayed the accrual of the on sale bar.⁶⁰ In *Robotic Vision Systems, Inc. v. View Engineering, Inc.*,⁶¹ the new requirement that all of the elements must be developed was extended even further to those components of the invention that were not claim limitations.⁶²

Finally, although a design patent case, the Federal Circuit further muddled the law in *Continental Plastic*.⁶³ In that case, the designer offered for sale a wooden model and drawings representing a juice bottle.⁶⁴ The designer made some changes, however, to the design in order to make the bottle suitable for mass production.⁶⁵ The changes did not represent limitations in the claim, but were only necessary for manufacturing the bottles in an automated fashion.⁶⁶ The court could have merely applied *Barmag*, where changes made only to obtain “commercial marketability” were not required even under the reduction to practice standard.⁶⁷ Instead, the court applied a test under which changes made to the design that were “minute” were “insufficient” to delay the on sale bar.⁶⁸ In addition, the court claimed that, of the *412 four “totality of circumstances” factors, commercial exploitation was the “primary policy underlying an ‘on sale’ case.”⁶⁹

An inventor faced with these cases, quite understandably, would have little way of knowing which standard would be used, much less when the on sale bar would begin to accrue. With the setting of these cases as background, the Federal Circuit was faced with *Pfaff v. Wells*. It advanced yet another standard, this time starting the accrual of the on sale bar even earlier than before.⁷⁰

IV. *Pfaff v. Wells*: “Expected to Work” and “Ready for Patenting”

The facts of *Pfaff* are simple. Wayne Pfaff invented a new computer chip socket at the request of Texas Instruments.⁷¹ Pfaff, after conceiving a design, prepared engineering drawings for his new socket.⁷² The drawings were completed by March 1981.⁷³ Another company was able to tool and produce the chip based on the engineering drawings alone, and Pfaff in fact added nothing more to the invention.⁷⁴ Sending diagrams for production without first developing prototypes was normal procedure for Pfaff.⁷⁵ After submitting his drawings for production, Pfaff entered into a written purchase agreement with Texas Instruments on April 8, 1981.⁷⁶ The sockets were not actually constructed and ready for use, however, until July 1981.⁷⁷ And Pfaff did not file a patent application until April 19, 1982, more than one year after the purchase agreement with TI was made.⁷⁸ Therefore, the issue in *Pfaff* was clear: if the drawings triggered Pfaff’s grace period, his patent was invalid; if

reduction to practice was required, the patent was valid (see chart below). *413 Accordingly, the facts presented an ideal case to review the issue of the triggering of the on sale bar.⁷⁹

Date	Event	On Sale Implication
March 1981	Drawings complete	Enabling documents available
April 8, 1981	TI purchase order	Commercial sale
April 19, 1981	One year before pat. filed	Critical date
July, 1981	Sockets delivered	Reduction to Practice
April 19, 1982	Patent application filed	Filing date

The district court (pursuant to a Special Master’s report) applied the reduction to practice standard, thus maintaining the validity of the patent, and also held that some claims had been infringed.⁸⁰ The Federal Circuit, however, began by recognizing that the reduction to practice requirement had been rejected by the court in *UMC*.⁸¹ Instead, the *Pfaff* court asked “whether the invention was substantially complete at the time of the sale such that there was ‘reason to *expect that it would work* for its intended purpose upon completion.’”⁸² The court found that the drawings represented a finished version of Mr. Pfaff’s invention; indeed the drawings themselves were “very similar” to the actual drawings later used in Pfaff’s patent application.⁸³ Specifically, the court found that “t he only step not fully performed at the time of the sale was the customized tooling for manufacturing the invention.”⁸⁴ Thus, in the court’s opinion, the on sale bar had been triggered.⁸⁵

Two other factors led the court to conclude that, at the time of the purchase order, Pfaff had sufficiently completed his invention to trigger the on sale bar.⁸⁶ First, the invention was a simple one that could have easily been constructed based on the drawings alone—this was not an invention that required any further *414 development to make it work.⁸⁷ Second, the court recognized that a prototype had not been completed, but found one unnecessary because, pursuant to his routine practice in developing similar products, Pfaff was confident that his invention would work.⁸⁸

An experimental use argument was also quickly turned down, and so four of the six asserted claims were invalidated under the on sale bar.⁸⁹ Finally, the court applied the “section 102(b)/103 on sale bar,” which means that, in addition to barring the invention actually sold (similar to Section 102 anticipation), what was offered for sale before the critical date also became a prior art reference for purposes of Section 103 obviousness.⁹⁰ Under this analysis, and in light of other prior art, the Federal Circuit also invalidated the two remaining claims.⁹¹

The Supreme Court granted certiorari mainly because the Federal Circuit’s “substantially complete” test appeared nowhere in the statute itself.⁹² The Court harshly criticized reference to a “substantially complete” standard, noting that the rule “seriously undermines the interest in certainty” and “finds no support in the text of the statute.”⁹³ The Court similarly denounced the vague “totality of the circumstances” test first advanced by the Federal Circuit in *UMC*.⁹⁴ The Court agreed that reduction to practice was not a requirement under Section 102(b), but for a different reason than the Federal Circuit: reduction to practice is not required to obtain a patent.⁹⁵ Citing at length the *Telephone Cases*, the Court concluded that Pfaff “could have obtained a patent on his novel socket at the time he accepted the purchase order from Texas Instruments.”⁹⁶ The Court correctly reasoned that one purpose of Section 102(b) is to prevent undue delays before inventors apply for patents.⁹⁷ Accordingly, the Court advanced a new standard consistent with this *415 policy that would prevent inventors from delaying a patent application more than one year after a commercial sale if the inventor could have applied for a patent at the time of the sale.⁹⁸

Specifically, the Court concluded that the on sale bar “applies when two conditions are satisfied before the critical date. First, the product must be the subject of a commercial [and not experimental] offer for sale ... [s]econd, the invention must be ready for patenting.”⁹⁹ The second condition can be met, according to the Court, in at least two ways: “by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention.”¹⁰⁰

These conditions are summarized in the chart below.

On Sale Bar Test	Condition One	Condition Two
Met by:	a) Commercial offer for sale; AND	a) Reduction to practice OR Enabling description of invention available; AND
	b) Of a product later claimed or that makes claim obvious; AND	b) Available before the critical date
	c) Before the critical date	

Despite the apparently rigid standard, the court left unchanged the experimental testing exception to the on sale bar, so long as the sale was not predominantly for a commercial interest.¹⁰¹

It is easy to understand why the court proposed this new test. As stated, one purpose for Section 102(b) is to prevent inventors from delaying applying for a patent more than one year after it is “completed.”¹⁰² The court concluded, reasonably, that an invention should be deemed completed when it is enabling—when the inventor can show a skilled artisan how to make the subject of the *416 invention.¹⁰³ Understandably, then, if a patent could have been applied for, the Court would trigger the on sale bar; delays thereafter would be viewed as attempts to extend the patent period.¹⁰⁴

The Court applied its new standard to the facts at hand. The first condition was met, according to the Court, because the purchase order constituted a commercial sale, occurred more than one year before the filing date, and represented the subject of Pfaff’s patent.¹⁰⁵ The second condition was met as well, but not under the reduction to practice prong. Instead, the Court noted that the “drawings Pfaff sent to the manufacturer before the critical date fully disclosed the invention.”¹⁰⁶ In short, under the second condition’s second prong, Pfaff could have applied for a patent based on the drawings that were sent to the tooling company.¹⁰⁷ Because both conditions of the new test were met, the Court affirmed the Federal Circuit’s finding of invalidity.¹⁰⁸

Pfaff represents a very unique situation and can easily be distinguished by patentees accused of selling a completed invention more than one year before filing an application. It was a combination of all of the following that made the on sale bar here a relatively easy case; it involved an invention that was, before the critical date:

- a) sold for a commercial purpose,¹⁰⁹
- b) itself or an obvious improvement thereof later claimed,¹¹⁰
- c) designed completely with no further work required by the inventor,¹¹¹
- d) of a simple mechanical item,¹¹²
- e) one the inventor knew (with reasonable certainty) to work for its intended purpose,¹¹³
- *417 f) one that required no experimentation for functionality to demonstrate it worked for its intended purpose,¹¹⁴
- g) one that contained all of the elements of the claimed invention,¹¹⁵
- h) one that the inventor could describe in a manner sufficient to enable one skilled in the art to construct the invention,¹¹⁶ and
- i) one that, in retrospect, did in fact work for its intended purpose.¹¹⁷

The last factor is the most astonishing and represents the largest weakness of the new test. Unlike its predecessors, the new test disregards whether or not the invention actually works, or was even predicted to work for its intended purpose at the time of the sale. In short, inventors after *Pfaff* must not offer for sale anything that they could construct and that they have any

reason to believe will work. But that is a rather odd conclusion, because most inventors have confidence in their ideas—whether their invention ultimately is a success or not. Rather than recognize that an invention is not “known to work for its intended purpose” even if it can be adequately described, *Pfaff* now imputes on confident inventors a higher level of knowledge than actually exists.¹¹⁸ For those inventions that ultimately fail, presumably a patent is not sought, and the matter is irrelevant. For example, had Pfaff’s socket not successfully performed its purpose, Pfaff would not obtain a patent at all. The new *Pfaff II* standard is therefore somewhat backward-looking, and makes it difficult for inventors, at least those in fields that are not “simple,” to predict whether or not the on sale bar has been triggered.

In addition to the problem of hindsight, two other disadvantages suggest a modified test is needed. First, both Wells and the Supreme Court objected to the reduction to practice standard because it used language in Section 102(g) for interpreting Section 102(b).¹¹⁹ Yet, both suggested the “ready for patenting” standard that, in essence, relies upon language from Section 112 to determine the triggering of 102(b). More importantly, the “ready for patenting” test still does not meet the Court’s own fundamental objection to the Federal Circuit’s former test: it *418 lacks certainty.¹²⁰ Inventors will not be able to readily determine whether or not their invention is “ready for patenting.”¹²¹ The Patent Office and the courts decide whether or not Section 112 has been met when a patent application is filed, not the inventor.¹²²

An alternative standard that would provide more certainty had been proposed by Judge Bryson in the *Seal-Flex* case, and was suggested in an amicus brief in *Pfaff* by the Solicitor General and before the Supreme Court in oral argument.¹²³ Judge Bryson wrote that “if the sale or offer in question embodies the invention for which a patent is later sought, a sale or offer to sell that is primarily for commercial purposes and that occurs more than one year before the application renders the invention unpatentable.”¹²⁴ The “Bryson test” essentially avoids the degree of completion and the demonstration to work issues by assuming that whatever is offered for sale is completed and works, at least in the inventor’s opinion.¹²⁵ After all, Section 102(b) is only a grace period, and still grants inventors a relatively generous one year to file even after a sale. Inventors that are wary regarding whether their invention will work, under this view, should simply not yet sell the subject of their invention. Under the Bryson test, therefore, inventors themselves would decide whether they require more testing or if they are sufficiently confident in their invention to offer it for sale.¹²⁶

The Supreme Court, however, rejected the Bryson test because of “the possibility of additional development after the offer for sale” that presumably would avoid the bar.¹²⁷ But this objection overlooks the 102(b)/103 bar that has been widely accepted, and that would properly apply to additional obvious *419 developments.¹²⁸ Instead, the policy considerations behind the on sale bar suggest finding an alternative to the Bryson test, because inventors should not be held to their mere confident beliefs. Of the four policy considerations typically advanced, the Federal Circuit has suggested more than once that commercial exploitation and extension of the patent term is the most important.¹²⁹ But the term “commercial exploitation” has not adequately been defined, and the concern for the exploitation of an undeveloped idea is likely overstated. And as the AIPLA amicus brief aptly noted, “The only way any business can really exploit the commercial value of an invention is by making and selling it.”¹³⁰

Even on the facts of *Pfaff*, this observation must be true. If, despite his high level of confidence, Mr. Pfaff’s invention failed to operate properly, there would have been no commercial benefit to Pfaff, both Pfaff and Texas Instruments entered their agreement assuming that the invented sockets would actually work.¹³¹ But if their agreement was sufficient to trigger the on sale bar, the presence or absence of Pfaff’s drawings would also have been irrelevant; the stage of the invention would not matter because the parties’ own assumptions would control. And, ultimately, whether or not Pfaff was delaying the filing of a patent when he could have—the essence of “commercial exploitation”—would not matter at all. Bryson’s test, therefore, triggers the bar earlier than the justification for Section 102(b) would require or suggest.

V. A New Standard: “Able to Reduce to Practice”

Another test should be adopted that avoids the shortcomings of the others considered so far, while preserving the policies of the on sale bar. In *Pfaff*, the Supreme Court held that reduction to practice was not necessary, but was still sufficient to trigger the on sale bar.¹³² Alternatively, the bar can now be triggered by the availability of enabling documents.¹³³ This is a somewhat paradoxical test, *420 considering the presumed justification for the new standard—undue patent term extension and commercialization.

Recall that the reduction to practice test has two elements, construction of the invention and demonstration that the invention works for its intended purpose.¹³⁴ The Court stated that the two elements would trigger the bar. In its new enablement prong,

the Court apparently weakened the first half of the reduction to practice standard—no longer is actual construction required; it is now sufficient to trigger the bar if an inventor can adequately describe how to construct the invention. The first half of the test, therefore, was somewhat broadened. But the second half of the reduction to practice test was ignored—there is no longer a demonstration requirement under the “ready for patenting” test.¹³⁵ But if that is no longer required, why didn’t the Supreme Court do away with reduction to practice, or at least change the test to merely require proof of construction of an item to satisfy reduction to practice? After all, the Federal Circuit actually focused more on the second half with its “expected to work” test.¹³⁶

The Supreme Court correctly recognized that a requirement of reduction to practice would be underinclusive—some inventors could delay patent applications or extend the patent term of a completed invention by postponing actual construction. But the new test is overinclusive because an inventor should not be held to have commercialized an unfinished invention—one that the inventor believes requires more work before it is ready to use for its intended purpose. Instead of broadening one half of the reduction to practice test and ignoring the other, however, the Supreme Court should have broadened both parts of the test, but still requiring both.

The “demonstration” half of test could be met not by requiring actual demonstration but at the time the inventor believed that work on the invention was finished at the time of the sale. This proposal is similar to the Bryson test, but relies only on the inventor’s expectations of success regarding the invention as it stands at the time of the sale, not as it might when it is ultimately finished. In short, if the inventor thinks he is done and the product is ready for sale, the trigger starts; if the inventor expects to make changes regarding what is later claimed, it does not.

This test prevents inventors from withholding their developments in a manner that would exploit the patent term, while making the risks of sales before the critical date clear to inventors. Like the *Pfaff II* test, those inventions that are “ready for patenting” would still be barred, but only if one skilled in the art would reasonably *421 expect the invention to work for its intended purpose.¹³⁷ In short, the inventor’s own actions can bar a later patent if the inventor had sufficient knowledge at the time of the sale to reduce the invention to practice. For *Pfaff*, the result would be the same, because his drawings indicated how the invention could be reduced to practice and fully represented an invention *Pfaff* was confident would work as described.

The new standard would also clarify the decision in *Micro Chemical v. Great Plains Chemical Company*.¹³⁸ Even though the inventor in that case, Mr. Pratt, had constructed a weighing system and had a rough sketch of a mixing system, he did not know how to combine the two, and in fact his initial attempts to do so were unsuccessful.¹³⁹ Not until significant improvements were made, presumably non-obvious improvements, did the invention work.¹⁴⁰ Therefore, rather than conclude that the invention was not “substantially complete,” the court could simply have looked to the inventor’s ability to reduce the invention to practice. The new test would be similar to the Bryson test, because the inventor can decide when the invention is complete, but only if there is nothing more planned to be done to develop the invention at the time of the sale. Unlike the Bryson test, which in some cases would bar inventions that were offered for sale but not at all developed,¹⁴¹ the “able to reduce to practice” standard bars a patent only if it was completed such that it could have been constructed and was reasonably expected to work in the form represented in the enabling documents at the time of the sale.

The new standard may not offer the same degree of certainty as the reduction to practice test. The reduction to practice test uniquely requires a completely constructed invention; anything less would not trigger the on sale bar. But that is precisely why the reduction to practice standard is inappropriate—it places too much control in the hands of the inventor to unreasonably delay filing for a patent application. The inventor alone can decide, even after commercializing an invention, when to reduce the invention to practice. If the on sale bar required reduction to practice, therefore, the inventor could easily extend the scope of the patent term by delaying those final steps known to those skilled in the relevant art.¹⁴² *422 Requiring reduction to practice would also present an anomaly whereby an invention not yet reduced to practice, but offered for sale, could bar a patent under Section 103 but not under Section 102.¹⁴³ However, the “able to reduce to practice test” offers certainty, because the inventor knows when the work of invention is done, such that he can both (a) show another how to make the invention, and (b) expect it to work without any further development.

The Supreme Court described in the *Bonito Boats* case the “careful balance” between inventors and the public in obtaining a patent within the provided statutory grace period.¹⁴⁴ Specifically, the federal patent laws are intended to balance “the need to promote innovation and the recognition that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy.”¹⁴⁵ Under the balance, patent protection does not extend to those inventors that develop inventions that are not new, whether the novelty is affected by the actions of a third party or the inventor

alone.¹⁴⁶ After all, “it is a condition upon the inventor’s right to a patent that he shall not exploit his discovery competitively after it is ready for patenting, he must content himself with either secrecy or legal monopoly.”¹⁴⁷

This careful balance is embodied, in the on sale bar context, by the four policy factors supporting the on sale bar that were initially proposed under the “totality of the circumstances” standard.¹⁴⁸ Review of the policy considerations initially proposed under the “totality of the circumstances” standard further supports the new able to reduce to practice test. First, there is no concern that products offered for sale but that are not yet sufficiently developed would be removed from the public domain. Selling mere concepts, even those that could be constructed but are *423 expected to fail without more research and development would not yet be ready for the public.¹⁴⁹ Under the proposed test, therefore, the first policy concern would be addressed by waiting until the inventor believed he was finished, thus limiting the risk of detrimental public reliance.¹⁵⁰

Second, the new standard would encourage the timely disclosure of inventions, but only once the inventor had a sufficient degree of knowledge at the time of the sale.¹⁵¹ The patent system does not benefit, after all, from the disclosure of so called “half-baked ideas” that are not yet expected to work and do not benefit the public. But the Supreme Court focused on this factor almost exclusively, and selected a test that would prevent an inventor from any further research after a patent could be filed, however useless it would be.¹⁵² But timely patent applications should not be sought at the cost of the other three policy considerations especially when commercialization has repeatedly been viewed as the most important. Instead, under the new test, the on sale bar would trigger not when the inventor could have assembled the claimed invention, but when the inventor knew his work was done. Again, this captures the rationale of the Bryson test that the Solicitor General proposed—the inventor decides when the bar should trigger, while not penalizing inventors that know they still have more to do before finishing their work.¹⁵³

Third, commercial exploitation to extend the patent term would not occur for those sales consisting merely of research and development arrangements. In oral argument before the Supreme Court, parties argued that the Bryson test was unclear and could potentially reach sales of development contracts, such as to seek cures for diseases.¹⁵⁴ Commercialization cannot occur until the inventor’s work on the new idea, in the inventor’s opinion, is finished. If more research or testing is expected, the inventor’s work is not finished, and the invention has not yet been exploited. Under the proposed test, cases where the invention was sold, but not yet developed would not fall under the on sale bar.¹⁵⁵ Rather, a sale of an invention, once known to work, would reflect the inventor’s ability to commercialize while delaying the actual reduction to practice.

*424 And finally, the standard would allow inventors sufficient time to develop inventions and determine the value of undeveloped ideas.¹⁵⁶ Otherwise, “if mere discussions prior to the critical date, or even an agreement to develop and provide a device that had not yet been invented, developed, or completed were to be held to be a bar to patentability, then collaboration between inventors and customers would be greatly impeded.”¹⁵⁷ The Supreme Court was also cognizant of this problem, but insisted on requiring inventors to contract around it.¹⁵⁸ The able to reduce to practice standard, however, would obviate the need for such a contract, and even unwary inventors that offered for sale yet undeveloped ideas without such a contract would not be penalized. Moreover, the standard would prevent inventors from fraudulently obtaining such contracts even though their inventions were in fact sufficiently developed.¹⁵⁹

In addition to the policy considerations, an equally important concern is the exception for sales primarily for experimental purposes.¹⁶⁰ It is well settled that sales of inventions, even before the critical date, made to determine whether the invention works for its intended purpose are acceptable, and do not trigger the bar.¹⁶¹ This is consistent with the able to reduce to practice test—if a sale is made without knowledge to expect it to work, the bar is not triggered. In contrast, sales made primarily for commercial gain with no further work expected by the inventor, even if not yet completely reduced to practice, rightly trigger the bar. In the *Pfaff* case itself, for example, the Federal Circuit found that Pfaff’s socket test was only a fatigue test, and that Pfaff did not need to test functionality.¹⁶² Consistent with the proposed standard, because testing was not required to demonstrate the invention would work for its intended purpose, the bar was properly triggered.¹⁶³ This is also consistent with prior Federal Circuit jurisprudence, where a finding that functionality *425 of an invention has not been established by the time of the sale delays the triggering of the on sale bar.¹⁶⁴

VI. Conclusion

The Federal Circuit, in *UMC*, eliminated the reduction to practice requirement to trigger the on sale bar, but replaced it with a standard that admittedly could not be formulated clearly. The Supreme Court, unhappy with the vague standard, finally addressed the on sale bar issue eleven years later and offered a somewhat more reasonable standard in *Pfaff II*. Still, however,

the test could be clarified further by the able to reduce to practice standard, barring a patent for an invention offered for sale when the inventor could construct the invention and knew with reasonable certainty it would work in its proposed form. *Pfaff II* could be read to require both elements of the proposed test because of its experimental exception, but the standard must be clarified. The Federal Circuit, therefore, should modify the Supreme Court's test by assuming it applied to the first half of the reduction to practice test, and introduce the able to reduce to practice test to incorporate *Pfaff II* while making the test fair for inventors and without exceeding the policy justifications behind Section 102(b).

Footnotes

¹ See, e.g., *Seal-Flex, Inc. v. Athletic Track & Court Constr.*, 98 F.3d 1318, 1323-24, 40 U.S.P.Q.2d (BNA) 1450, 1453-54 (Fed. Cir. 1996).

² See, e.g., *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 149, 9 U.S.P.Q.2d 1847, 1851 (1989).

³ 35 U.S.C.A. § 102(b) (1998).

⁴ 119 S.Ct. 304, 48 U.S.P.Q.2d (BNA) 1641 (1998) [hereinafter *Pfaff II*].

⁵ Nicholas Groombridge & Nathaniel I. Watts, *U.S. Supreme Court's Decision in 'Pfaff' Case Awaited With Interest*, N.Y. L.J., Nov. 2, 1998, at S4 (predicting the *Pfaff* case "will likely be the most significant development in the law of the on-sale bar since the creation of the Federal Circuit ushered in the modern era of patent law").

⁶ See *Seal-Flex*, 98 F.3d at 1325, 40 U.S.P.Q.2d at 1455 (Bryson, J., dissenting).

⁷ 35 U.S.C.A. §§ 102-103 (1984 & Supp. 1998).

⁸ *Id.*

⁹ 35 U.S.C.A. §§ 282, 307 (1984 & Supp. 1998).

¹⁰ 35 U.S.C.A. § 282 (1984 & Supp. 1998).

¹¹ See *Buildex Inc. v. Kason Indus., Inc.*, 849 F.2d 1461, 1462-63, 7 U.S.P.Q.2d (BNA) 1325, 1326-27 (Fed. Cir. 1988).

¹² See *Ferag AG v. Quipp Inc.*, 45 F.3d 1562, 1566, 33 U.S.P.Q.2d (BNA) 1512, 1514-15 (Fed. Cir. 1995).

¹³ 35 U.S.C.A. § 102 (1984 & Supp. 1998).

¹⁴ See, e.g., *Lough v. Brunswick Corp.*, 82 F.3d 1113, 1122, 39 U.S.P.Q.2d (BNA) 1100, 1106 (Fed. Cir. 1996).

¹⁵ See, e.g., *Beachcombers Int'l, Inc. v. Wildewood Creative Prods., Inc.*, 31 F.3d 1154, 1160, 31 U.S.P.Q.2d (BNA) 1653, 1657 (Fed. Cir. 1994).

16 35 U.S.C. § 102(b) (1994).

17 *Id.*

18 *See, e.g., Buildex*, 849 F.2d at 1463-64, 7 U.S.P.Q.2d at 1327-28.

19 *Pfaff II* was decided November 10, 1998.

20 An inventor may still, however, sell the *rights* to a patent itself before it one issues, as long as a product embodied by the patented claims is not offered for sale. *See Mas-Hamilton Group, Inc. v. LaGard, Inc.*, 156 F.3d 1206, 1216-17, 48 U.S.P.Q.2d (BNA) 1010, 1014 (Fed. Cir. 1998).

21 U.S. CONST. art. I., § 8, cl. 8.

22 35 U.S.C. § 102(b) (1994).

23 United States Supreme Court Official Transcript, No. 97-1130, *Pfaff v. Wells Elecs., Inc.*, 1998 WL 713489, *49 (1998) (No. 97-1130) [hereinafter Oral Argument Transcript].

24 *See* Janice M. Mueller, *Conception, Testing, Reduction to Practice: When is it Really On Sale?*, 80 J. PAT. & TRADEMARK OFF. SOC'Y 305, 320 (1998); *see also* Brief of Amicus Curiae United States, *Pfaff v. Wells Elecs., Inc.*, No. 97-1130, 1998 WL 246707, *11 (1998).

25 *See* Mueller, *supra* note 24, at 319 (calling the on sale bar penalty “draconian”).

26 There was a two year grace period under the 1839 version. Hugh H. Matsubayashi, Note, *In re Mahurkar: The Federal Circuit's Misapplied Focus on Commercialization in “On Sale” Bar Analysis*, 72 WASH. L. REV. 267, 270 (1997). Even before the statute, however, courts had interpreted the original Patent Act of 1793 to include an on sale bar. *See Pennock v. Dialogue*, 27 U.S. (2 Pet.) 1, 24 (1829).

27 For a general history of the judicial standards developed over time until 1988, *see* William C. Rooklidge and W. Gerard von Hoffmann, *Reduction to Practice, Experimental Use, and the ‘On Sale’ and ‘Public Use’ Bars to Patentability*, 63 ST. JOHN'S L. REV. 1 (1988).

28 *See* Mueller, *supra* note 24, at 306.

29 Even the most conservative test actually suggested by the courts did not require an actual exchange, requiring instead that the physical product be “on hand” and ready for shipment. *See, e.g., Burke Elec. Co. v. Independent Pneumatic Tool Co.*, 234 F. 93, 93 (2d Cir. 1916).

30 *Timely Prods. Corp. v. Arron*, 523 F.2d 288, 302, 187 U.S.P.Q.2d (BNA) 257, 267-68 (2d Cir. 1975), *overruling recognized by In re Mahurkar Double Lumen Hemodialysis Catheter Patent Litigation*, 831 F. Supp. 1354, 1368, 28 U.S.P.Q.2d (BNA) 1801, 1811 (N.D. Ill. 1993); *see* *UMC Elecs. Co. v. United States*, 816 F.2d 647, 659 n.4, 2 U.S.P.Q.2d (BNA) 1465, 1474 n.4 (Fed. Cir. 1987) (Smith, J., dissenting).

31 *Timely Prods.*, 523 F.2d at 302, 187 U.S.P.Q.2d at 267.

32 *Id.*, 187 U.S.P.Q.2d at 268.

33 *Id.*; *see generally* City of Elizabeth v. Am. Nicholson Pavement Co., 97 U.S. 126 (1877).

34 *UMC*, 816 F.2d at 652, 2 U.S.P.Q.2d at 1468.

35 *Pfaff II*, 119 S.Ct. 304, 310, 48 U.S.P.Q.2d (BNA) 1641, 1645 (1998).

36 *See, e.g.*, Newkirk v. Lulejian, 825 F.2d 1581, 1582, 3 U.S.P.Q.2d (BNA) 1793, 1794 (Fed. Cir. 1987).

37 Barmag Barmer Maschinenfabrik AG v. Murata Mach., Ltd., 731 F.2d 831, 221 U.S.P.Q.2d (BNA) 561 (Fed. Cir. 1984).

38 *Id.* at 833, 221 U.S.P.Q.2d at 562.

39 *Id.* at 837, 221 U.S.P.Q.2d at 565.

40 *Id.*

41 *UMC Elecs. Co. v. United States*, 816 F.2d 647, 2 U.S.P.Q.2d (BNA) 1465 (Fed. Cir. 1987).

42 *Id.* at 649-50, 2 U.S.P.Q.2d at 1465-66.

43 *Id.* at 652, 2 U.S.P.Q.2d at 1468.

44 *Id.* at 656, 2 U.S.P.Q.2d at 1471. In its very next sentence, however, the Court warned that the test still required something more than a “mere concept.” *Id.*

45 *Id.*

46 *Id.*, 2 U.S.P.Q.2d at 1471-72.

47 *See, e.g.*, HERBERT F. SCHWARTZ, PATENT LAW AND PRACTICE 67-68 (2d ed. 1995); *Envirotech Corp. v. Westech Eng’g Inc.*, 904 F.2d 1571, 1574, 15 U.S.P.Q.2d (BNA) 1230, 1232 (Fed. Cir. 1990).

48 *UMC*, 816 F.2d at 656, 2 U.S.P.Q.2d at 1472. Judge Newman later recognized in an opinion that the new standard “has been criticized as unnecessarily vague.” *Seal-Flex, Inc. v. Athletic Track & Court Constr.*, 98 F.3d 1318, 1323 n.2, 40 U.S.P.Q.2d (BNA) 1450, 1453 n.2 (Fed. Cir. 1996). The totality of circumstances test has been questioned because of the power it gives the Federal Circuit. *See* Thomas K. Landry, *Certainty and Discretion in Patent Law: The On-Sale Bar, the Doctrine of Equivalents, and Judicial Power in the Federal Circuit*, 67 S. CAL. L. REV. 1151 (1994).

49 *UMC*, 816 F.2d at 657, 2 U.S.P.Q.2d at 1472.

50 *Id.*

51 Seal-Flex, Inc. v. Athletic Track & Court Constr., 98 F.3d 1318, 1324, 40 U.S.P.Q.2d (BNA) 1450, 1454 (Fed. Cir. 1996) (emphasis added).

52 *See id.* at 1323, 40 U.S.P.Q.2d at 1454.

53 *Id.*

54 *Id.* at 1321, 40 U.S.P.Q.2d at 1451-52 (noting that offer for sale was for a track at another high school “like” the existing track). *Cf.* Kolmes v. World Fibers Corp., 107 F.3d 1534, 1540, 41 U.S.P.Q.2d (BNA) 1824, 1833 (Fed. Cir. 1997) (delaying accrual of bar where distribution of invented gloves was for testing purposes).

55 *Seal-Flex*, 98 F.3d at 1323, 40 U.S.P.Q.2d at 1453; *see* Scaltech, Inc. v. Retec/Tetra, L.L.C., 156 F.3d 1193, 1198-99, 48 U.S.P.Q.2d (BNA) 1037, 1040-41 (Fed. Cir. 1998) (concluding that there was not yet an invention to trigger an on sale bar when the inventor was working toward the development of a conception).

56 103 F.3d 1538, 41 U.S.P.Q.2d (BNA) 1238 (Fed. Cir.), *cert. denied*, 117 S.Ct. 2516 (1997).

57 *Id.* at 1540-44, 41 U.S.P.Q.2d at 1240-43.

58 *Id.* at 1544-45, 41 U.S.P.Q.2d at 1243.

59 *Id.* at 1545, 41 U.S.P.Q.2d at 1244 (emphasis added).

60 *Id.*

61 112 F.3d 1163, 42 U.S.P.Q.2d (BNA) 1619 (Fed. Cir. 1997).

62 “In this case the software program, even though not recited in the claims, was necessary for the operation of the invention.” *Id.* at 1167, 42 U.S.P.Q.2d at 1623.

63 Continental Plastic Containers v. Owen Brockway Plastic Prods., Inc., 141 F.3d 1073, 46 U.S.P.Q.2d (BNA) 1277 (Fed. Cir. 1998). The dissenting opinion asserts that the majority applied a different experimental use standard for design patents than for utility patents. *Id.* at 1081, 46 U.S.P.Q.2d at 1283. (Newman, J., dissenting in part and concurring in part). Regardless, the standard with regards to the triggering of the on sale bar is the same. *Id.* at 1077, 46 U.S.P.Q.2d at 1281.

64 *Id.* at 1078, 46 U.S.P.Q.2d at 1279.

65 *Id.*

66 *Id.*

67 Barmag Barmer Maschinenfabrik AG v. Murata Mach., Ltd., 731 F.2d 831, 838, 221 U.S.P.Q.2d (BNA) 561, 565 (Fed. Cir. 1984).

68 *Continental Plastic*, 141 F.3d at 1078, 46 U.S.P.Q.2d at 1280.

69 *Id.* at 1079, 46 U.S.P.Q.2d at 1281; *see also* Ferag AG v. Quipp Inc., 45 F.3d 1562, 1566, 33 U.S.P.Q.2d (BNA) 1512 (Fed. Cir. 1995); *In re* Mahurkar Double Lumen Hemodialysis Catheter Patent Litigation, 71 F.3d 1573, 1577, 37 U.S.P.Q.2d (BNA) 1138, 1141 (Fed. Cir. 1995). For a criticism of the fundamental importance given to this factor over the other three, *see* Matsubayashi, *supra* note 26.

70 Pfaff v. Wells, 124 F.3d 1429, 1434, 43 U.S.P.Q.2d (BNA) 1928, 1934 (Fed. Cir. 1997) [hereinafter Pfaff I].

71 *Id.* at 1432, 43 U.S.P.Q.2d at 1930.

72 *Id.*

73 *Id.*

74 *Id.*

75 *Id.* at 1434, 43 U.S.P.Q.2d at 1932. The drawings were also given to TI, but that did not factor into the court's analysis. *Id.* at 1433, 43 U.S.P.Q.2d at 1931.

76 *Id.* at 1432, 43 U.S.P.Q.2d at 1930. The written order confirmed an earlier verbal order, but the Federal Circuit did not need to decide which controlled here, as both occurred before the critical date.

77 *Id.*

78 *Id.*

79 *See* Groombridge & Watts, *supra* note 5.

80 *Pfaff I*, 124 F.3d at 1432, 43 U.S.P.Q.2d at 1930. The district court invalidated two of the six allegedly infringed claim as anticipated by a prior art reference; nevertheless, the Federal Circuit looked at all six under an on sale bar analysis. *Id.*

81 *Id.* at 1433-34, 43 U.S.P.Q.2d at 1931.

82 *Id.* at 1434, 43 U.S.P.Q.2d at 1932. (citing *Micro Chem., Inc. v. Great Plains Chem. Co., Inc.*, 103 F.3d 1538, 1545, 41 U.S.P.Q.2d (BNA) 1238, 1244 (Fed. Cir.), *cert. denied*, 117 S.Ct. 2516 (1997)) (emphasis added).

83 *Id.*

84 *Id.*

85 *Id.* at 1435, 43 U.S.P.Q.2d at 1933.

86 *Id.* at 1434, 43 U.S.P.Q.2d at 1932.

87 *Id.*

88 *Id.*

89 Pfaff did a routine fatigue test (72,000 cycles without failure), but the court found, correctly, that this tested durability, and was not used to prove the invention worked. *Id.* at 1435, 43 U.S.P.Q.2d at 1932-33. Further, because, unlike in *Seal-Flex*, the durability of the chip was not itself part of the claim, the testing did not affect the completeness of the invention. *Id.*

90 *Id.* at 1436, 43 U.S.P.Q.2d at 1933-34.

91 *Id.* at 1439, 43 U.S.P.Q.2d at 1935.

92 Also, it was granted because different circuits had different standards. Pfaff II, 119 S.Ct. 304, 308, 48 U.S.P.Q.2d (BNA) 1641, 1644 (1998).

93 *Id.* at 311, 48 U.S.P.Q.2d at 1646.

94 *Id.*

95 *Id.* at 308-09, 48 U.S.P.Q.2d at 1644-45.

96 *Id.* at 309, 48 U.S.P.Q.2d at 1645.

97 *Id.* at 310, 48 U.S.P.Q.2d at 1645.

98 *Id.* at 311, 48 U.S.P.Q.2d at 1646.

99 *Id.* at 311-12, 48 U.S.P.Q.2d at 1646-47.

100 *Id.* at 312, 48 U.S.P.Q.2d at 1647.

101 *Id.* at 310, 48 U.S.P.Q.2d at 1645-46.

102 *See supra* Part II.

103 *Pfaff II*, 119 S.Ct. at 312, 48 U.S.P.Q.2d at 1647.

104 *Id.*

105 *Id.* at 311-12, 48 U.S.P.Q.2d at 1646-47.

106 *Id.* at 312, 48 U.S.P.Q.2d at 1647.

107 *Id.*

108 *Id.*

109 *See id.*

110 *See id.* at 307-08, 48 U.S.P.Q.2d at 1643.

111 *See id.*

112 *See id.* at 307, U.S.P.Q.2d at 1643.

113 *See id.*

114 *See id.*

115 *See id.*

116 *See id.* at 312, 48 U.S.P.Q.2d at 1647.

117 *See id.*

118 *See Seal Flex, Inc. v. Athletic Track & Court Constr.*, 98 F.3d 1318, 1323-24, 40 U.S.P.Q.2d (BNA) 1450, 1454 (Fed. Cir. 1996) (recognizing that all-weather track, even if actually constructed, was not completely known to work in its claimed manner).

119 *See Oral Argument Transcript*, No. 97-1130, 1998 WL 713489, *18-*19 (1998); *Brief of Respondent Wells, Pfaff v. Wells Elecs., Inc.*, No. 97-1130, 1998 WL 351080, *13-*14 (1998).

120 *Pfaff II*, 119 S.Ct. at 311, 48 U.S.P.Q.2d at 1646-47. During oral argument as well, reasonable certainty regarding the triggering of the bar was of great concern to the Court. *See Oral Argument Transcript*, 1998 WL 713489, at *27.

121 *Groombridge & Watts*, *supra* note 5, at 51; *but see* Robert C. Scheinfeld & Parker H. Bagley, *Sale of Invention as Statutory Bar to Protection*, N.Y. L.J., Nov. 25, 1998, at 3.

122 For a similar argument regarding § 102(b) and the best mode requirement of § 112, see *Robotic Vision Sys., Inc. v. View Eng'g, Inc.*, 112 F.3d 1163, 1167-68, 42 U.S.P.Q.2d (BNA) 1619, 1623-24 (Fed. Cir. 1997) (“Knowledge of one skilled in the art is

relevant to satisfaction of the best mode requirement, but such knowledge does not create a completed invention in an on-sale context”).

123 *See* Brief of Amicus Curiae United States, No. 97-1130, 1996 WL 246707, *11-13 (1998).

124 *Seal Flex, Inc. v. Athletic Track & Court Constr.*, 98 F.3d 1318, 1325, 40 U.S.P.Q.2d (BNA) 1450, 1450 (Fed. Cir. 1996) (Bryson, J., concurring in part and concurring in the result).

125 *Id.*

126 “An inventor who has offered his invention for commercial sale has objectively manifested his judgment that the invention is complete.” Brief of Amicus Curiae United States, 1996 WL 246707, at *19.

127 *Pfaff II*, 119 S.Ct. 304, 312 n.14, 48 U.S.P.Q.2d (BNA) 1641, 1647 (1998).

128 Even the Federal Circuit in *Pfaff I* applied such a bar. *Pfaff I*, 124 F.3d 1429, 1436-38, 43 U.S.P.Q.2d (BNA) 1928, 1933-35 (Fed. Cir. 1997).

129 *Continental Plastic Containers v. Owen Brockway Plastic Prods., Inc.*, 141 F.3d 1073, 1079, 46 U.S.P.Q.2d (BNA) 1277, 1280-81 (Fed. Cir. 1998); *Ferag AG v. Quipp Inc.*, 45 F.3d 1562, 1566, 35 U.S.P.Q.2d (BNA) 1512, 1515 (Fed. Cir. 1995); *In re Mahurkar Double Lumen Hemodialysis Catheter Patent Lit.*, 71 F.3d 1573, 1577, 37 U.S.P.Q.2d (BNA) 1138, 1142 (Fed. Cir. 1995).

130 Brief of Amicus Curiae American Intellectual Property Law Association, No. 97-1130, 1998 WL 246707, *11 (1998).

131 *See, e.g., Pfaff II*, 119 S.Ct. at 307, 48 U.S.P.Q.2d at 1643.

132 *See Id.* at 312, 48 U.S.P.Q.2d at 1647.

133 *See Id.*

134 *See Newkirk v. Lulejian*, 825 F.2d 1581, 1582, 3 U.S.P.Q.2d (BNA) 1793, 1794 (Fed. Cir. 1987).

135 *Pfaff II*, 119 S.Ct. at 309, 48 U.S.P.Q.2d at 1644.

136 *Pfaff I*, 124 F.3d 1429, 1434, 43 U.S.P.Q.2d (BNA) 1928, 1932 (Fed. Cir. 1997).

137 *Pfaff II*, 119 S.Ct. at 312, 48 U.S.P.Q.2d at 1647.

138 *Micro Chem., Inc. v. Great Plains Chem. Co., Inc.*, 103 F.3d 1538, 41 U.S.P.Q.2d (BNA) 1238 (Fed. Cir.), *cert. denied*, 117 S.Ct. 2516 (1997).

139 *Id.* at 1543, 41 U.S.P.Q.2d at 1242.

140 *Id.*

141 For example, assume an inventor offers for a sale a cure for arthritis. If the inventor takes two years to develop the cure, and then applies for the patent, it is not clear that (short of a clear contract) the patent would be free from an on sale bar objection. Oral Argument Transcript, No. 97-1130, 1998 WL 713489, *14 (1998).

142 The same result could also be achieved by drafting patent claims for completed inventions worded in a manner that has not yet been reduced to practice. See *Groombridge & Watts*, *supra* note 5. *But see* *Mueller*, *supra* note 24, at 319 (noting that such tradeoffs for time by adding limitations would “not be made lightly”).

143 After all, section 103 assumes, by definition, that the claimed invention itself has not yet been reduced to practice; otherwise it would be anticipated under section 102. See *Scaltech, Inc. v. Retec/Tetra, L.L.C.*, 156 F.3d 1193, 1198 n.3, 48 U.S.P.Q.2d (BNA) 1037, 1041 n.3 (Fed. Cir. 1998). Under the proposed “able to reduce to practice” test, the 102/103(b) “anomaly” would be resolved because reduction to practice would not be required, and under an objective standard the inventor would be barred from any obvious improvements from his completed invention.

144 *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146, 9 U.S.P.Q.2d (BNA) 1847, 1850 (1989).

145 *Id.*

146 The on sale bar applies even to the activities of third party non-applicants that offer the patented subject matter for sale. See *Andrews v. Hovey*, 123 U.S. 267 (1887); *cf. In re Mahurkar Double Lumen Hemodialysis Catheter Patent Litigation*, 71 F.3d 1573, 37 U.S.P.Q.2d (BNA) 1138 (Fed. Cir. 1995) (holding on sale bar did not apply to sham sale by third party licensee).

147 *Bonito Boats*, 489 U.S. at 149, 9 U.S.P.Q.2d at 1851 (quoting *Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co.*, 153 F.2d 516, 520, 68 U.S.P.Q. (BNA) 54, 58 (2d Cir. 1946) (Learned Hand, J.)).

148 *General Elec. Co. v. United States*, 654 F.2d 55, 61, 211 U.S.P.Q. (BNA) 867, 873 (Ct. Cl. 1981) (listing the four policy considerations later adopted by the Federal Circuit); *King Instr. Corp. v. Otari*, 767 F.2d 853, 860, 226 U.S.P.Q. (BNA) 402, 406 (Fed. Cir. 1985) (adopting four policy considerations).

149 *Mueller*, *supra* note 24, at 307.

150 William C. Rooklidge, *The On-Sale and Public Use Bars to Patentability: The Policies Reexamined*, 1 FED. CIRCUIT B.J. 7, 18 (1991).

151 *General Elec. Co.*, 654 F.2d at 61, 211 U.S.P.Q.2d at 873.

152 *Pfaff II*, 119 S.Ct. 304, 309-10, 48 U.S.P.Q.2d (BNA) 1641, 1644-45 (1998).

153 The only exception, presumably rare, would be if the inventor contracted to sell an invention “as is” and the purchaser assumed the risk that the invention would not work; in that case the inventor’s work would be complete at the time of the sale, and the bar would trigger.

154 Oral Argument Transcript, No. 97-1130, 1998 WL 713489, *14 (1998).

155 Rooklidge, *supra* note 150, at 22-23.

156 *Id.* at 15-17.

157 Robotic Vision Sys., Inc. v. View Eng'g, Inc., 112 F.3d 1163, 1168, 42 U.S.P.Q.2d (BNA) 1619, 1623 (Fed. Cir. 1997); *see also* Mueller, *supra* note 24, at 308 (listing, as a separate policy concern, the “importance of unrestricted communication and collaboration between inventors and potential customers for their inventions”).

158 Oral Argument Transcript, 1998 WL 713489, at *12-*13, *24.

159 *Id.* at *48.

160 Rooklidge, *supra* note 150, at 34-39.

161 *See, e.g.*, Baker Oil Tools, Inc. v. Geo Vann, Inc., 828 F.2d 1558, 1563, 4 U.S.P.Q.2d (BNA) 1210, 1213 (Fed. Cir. 1987).

162 *Pfaff I*, 124 F.3d 1429, 1435, 43 U.S.P.Q.2d (BNA) 1928, 1934 (Fed. Cir. 1997).

163 *Id.*

164 *See, e.g.*, Shatterproof Glass Corp. v. Libbey-Owens Ford Co., 758 F.2d 613, 623, 225 U.S.P.Q. (BNA) 634, 638 (Fed. Cir. 1985); T.P. Lab., Inc. v. Prof'l Positioners, Inc., 724 F.2d 965, 220 U.S.P.Q. (BNA) 577 (Fed. Cir. 1984). *Cf.* Western Marine Elecs., Inc. v. Furuno Elec. Co., 764 F.2d 840, 226 U.S.P.Q. (BNA) 334 (Fed. Cir. 1985) (holding sale was not primarily for experimental purposes, and so triggered on sale bar). The experimental use or sale exception is available to inventors until the date the invention is actually reduced to practice. *See* RCA Corp. v. Data Gen. Corp., 887 F.2d 1056, 12 U.S.P.Q.2d (BNA) 1449 (Fed. Cir. 1989).