I. INTRODUCTION

On November 29, 1999, President Clinton signed into law The Intellectual Property and Communications Omnibus Reform Act of 1999.1 The Omnibus Reform Act included some of the most sweeping changes to the landscape of intellectual property law in more than a decade. Although patent practitioners had long been accustomed to yearly Congressional “tinkering,” the wholesale slaughter of certain patent rights and the imposition of entirely new rights and procedures may leave many practitioners gasping for breath and wondering about the implications of the Act and the resultant changes in patent practice that may arise.

One important provision of the Omnibus Reform Act was the American Inventors Protection Act of 19992 ("AIPA"). The AIPA was divided into eight subtitles, each of which included fairly extensive revisions to American intellectual property rights. This article focuses onSubtitle E of the AIPA, entitled “Domestic Publication of Patent Applications Published Abroad.” Subtitle E provides for the publication of virtually all United States patent applications at eighteen months from the patent application’s filing date. As will be further discussed below, the legislative shift from preserving the secrecy of a patent application until issuance to publishing patent applications before issuance represents a significant change in patent practice and may, in some cases, act to deprive inventors of rights. Additionally, the way in which the Patent and Trademark Office ("PTO") has chosen to implement the AIPA serves to drastically curtail the commercial advantage of the patent process to the applicant for patent.

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II. PUBLICATION OF PATENTS

A. The Prior View: Preserving the Inventor's Rights

Before the enactment of the AIPA, a patent application was kept in secrecy by the PTO until the patent application issued as a patent. Once the patent application issued as a patent, the patent was published by the PTO and freely available to the public for inspection.

The obligation of the PTO to maintain the secrecy of a pending patent application was set forth in 35 U.S.C. § 122 entitled “Confidential status of applications.” Under the statute, no information concerning a pending patent application could be released without the authority of the applicant or owner of the patent application. The PTO’s obligation to keep the pending patent application confidential acted to preserve the rights of the inventor. That is, the PTO’s obligation of secrecy provided the inventor with the final decision as to whether or not to disclose his invention to the public in return for the exclusivity afforded by an issued patent.

A typical patent application is first reviewed by a patent examiner at the PTO approximately fourteen to sixteen months after the patent application is filed with the PTO. The typical time required for a patent application to issue as a patent is around thirty-six months. Thus, the dialogue between the inventor and the examiner usually continues for approximately twenty to twenty-two months from the examiner’s first review of the patent application.

Under the previous system, if the inventor was not satisfied by the scope of the claims offered by the PTO, the inventor was under no obligation to proceed with prosecution of the patent application and the inventor suffered no loss of rights. That is, if the inventor was not satisfied with the scope of the allowable claims, the inventor could choose to abandon the patent application. Because only issued patents were published under the previous system, the abandoned patent application was never published. Thus, the secrecy of the invention was

3. 35 U.S.C. § 122 (1994), amended by 35 U.S.C. § 122 (Supp. V 1999) states: Applications for patents shall be kept in confidence by the Patent and Trademark Office and no information concerning the same given without authority of the applicant or owner unless necessary to carry out the provisions of any Act of Congress or in such special circumstances as may be determined by the Commissioner.

4. The applicant and the owner are often different entities under United States patent law. The applicant is the actual inventor or joint inventors that are applying for the patent. Typically, especially in a corporate setting, the inventors have an obligation to assign their rights to the invention to their employer. The employer is then the assignee of the inventor’s rights in the patent and is the owner of the patent.

5. Save for an act of Congress or in special circumstances determined by the Director. Because such situations, if they arose, would be quite rare, in practice the secrecy of a pending patent application was sacrosanct until issuance.

maintained and the inventor could seek to protect the invention as a trade secret. While trade secret protection may not provide the inventor with the right to prevent a competitor who has independently developed the invention from practicing the invention, trade secret protection may still provide a competitive advantage. For example, without a published patent application, competitors lack a publication setting forth the invention in clear, easy to follow language. Thus, the PTO's obligation of confidentiality served to protect the rights of the inventor at each step in the patenting process.

B. The New Regime: Publication at Eighteen Months

In contrast, pre-issuance publication of a patent application eviscerates the ability of the inventor to seek trade secret protection if the inventor and examiner are not able to reach an agreement with regard to an acceptable scope of protection. The new obligations of the PTO are set forth in the most recent revision of 35 U.S.C. § 122 entitled "Confidential status of applications; publication of patent applications." The new statute calls for each application to be published eighteen months from the filing date of the application. After publication, if the inventor and the examiner reach an agreement as to the scope of claims, the patent application then issues as a patent. The issued patent is then republished in its final form including the agreed-upon claims.

   (a) CONFIDENTIALITY.— Except as provided in subsection (b), applications for patents shall be kept in confidence by the Patent and Trademark Office and no information concerning the same given without authority of the applicant or owner unless necessary to carry out the provisions of an Act of Congress or in such special circumstances as may be determined by the Director.
   (b) PUBLICATION.—
      (1) IN GENERAL.— (A) Subject to paragraph (2), each application for a patent shall be published, in accordance with procedures determined by the Director, promptly after the expiration of a period of 18 months from the earliest filing date for which a benefit is sought under this title. At the request of the applicant, an application may be published earlier than the end of such 18-month period.
      (B) No information concerning published patent applications shall be made available to the public except as the Director determines.
      (C) Notwithstanding any other provision of law, a determination by the Director to release or not to release information concerning a published patent application shall be final and nonreviewable.

8. 35 U.S.C. § 122(b)(1)(A) (Supp. V 1999). The statute calls for the publication of the application after eighteen months from the earliest filing date for which a benefit is sought. Thus, certain United States or foreign applications claiming priority to earlier filed applications may be published at less than eighteen months from their US filing date.

   The exception to this rule, under 35 U.S.C. § 122 (b)(2), is for applications for which the applicant inventor verifies that the patent application has not and will not be filed in a foreign country that requires publication of patent applications. However, under 35 U.S.C. § 122 (b)(2)(B)(iii), if an applicant inventor makes such a verification, the inventor must inform the PTO within forty-five days or the United States patent application will become abandoned.

   One interesting loophole in this section of the statute would be the case of a foreign country that does indeed require publication of pending patent applications, but requires such publication at a time other than eighteen months from filing. The explicit language of the statute limits its application to foreign countries requiring publication at eighteen months.
Consequently, under the new system, the patent application may be published before the inventor and the examiner reach agreement as to the scope of the claims. In fact, publication of the patent application may occur before the inventor ever receives an initial response from the examiner. Once the application is published, the inventor no longer has the option of seeking to protect the invention as a trade secret because the secrecy necessary to preserve trade secret rights has been destroyed.

In addition, if the inventor is not satisfied with the scope of the claims offered by the PTO, the inventor is effectively hit with a double whammy: first, the inventor has been denied patent rights, and second, the inventor is also foreclosed from seeking trade secret rights. Thus, under the new regime, the rights of the inventor are given short shrift and the inventor must essentially throw himself at the mercy of the examiner after the eighteen-month publication date.

III. The Government Attempts to Sweeten the Deal, But Fails

A. Non-Publication of Patent Applications Abandoned Before Eighteen Months

Perhaps as an effort not to completely destroy the ability of an inventor to abandon the pursuit of patent protection in favor of trade secret rights, the statute provides that an application that is no longer pending at eighteen months shall not be published. However, at the eighteen-month mark, the inventor is typically unable to evaluate the extent of the scope of the claims that will be allowed. Thus, at eighteen months, the inventor may be unable to weigh the scope of rights that will potentially be afforded under patent protection with the rights afforded by trade secret protection.

B. Provisional Rights in Published Patent Applications

Possibly as an effort to offset the reduction in inventors rights that occurs in the new regime of mandatory publication at eighteen months, Subtitle E of the AIPA provides for the establishment of provisional rights running from the publication of the patent application until the patent issues. These provisional rights include the ability of the patent owner to obtain a reasonable royalty from a person using the invention

9. Although it is possible that the inventor and examiner may have reached an agreement as to the scope of claims by the eighteen-month publication date, such a situation is highly unlikely. Recall that the typical time to issue a patent application is approximately thirty-six months.
10. Although the typical response time for the examiner is sixteen months from the date of filing, sixteen months is merely an approximation and response times longer than eighteen months (the point at which the patent application is published) are common.
after the patent application is published, but before the application issues as a patent.13

However, the grant of provisional rights to the inventor comes with several strings attached.14 First, in order for the inventor to gain provisional rights, the patent application must eventually issue as a patent.15 Second, the claims in the issued patent must be substantially identical to the claims in the patent application.16 Third, the inventor must supply actual notice of the published patent application to the potential infringer for the provisional rights to accrue.17

These limitations on the enforcement of provisional rights effectively undermine the grant of provisional rights. For example, a competitor's infringement of a patent is typically only discovered years after the infringement began. If the patent owner is unaware of the infringement, the patent owner is unable to render the actual notice to the competitor as required by the statute. If the infringing activity is discovered later and notice is subsequently provided to the competitor, it is too late and the patent owner is unable to recover for the competitor's previous infringement. Thus, by requiring the infringer to have actual notice of the patent application, the provisional rights of the inventor are effectively quashed.

Another way in which the restrictions of the accrual of provisional rights effectively undermine the grant of provisional rights is that the patent must issue and the issued claims must be "substantially identical" to the claims in the published patent application.18 While a limitation granting provisional rights in a patent application only with regard to claims that appear in the issued patent may appear reasonable on its face, the limitation ignores the fact that claims are typically narrowed during the patent prosecution process because of input from the examiner. In addition, "substantially identical" is not defined anywhere in the statute and is a completely new term of art. Thus, the inventor has no way of knowing what adjustments to the claim language may trigger the "substantially identical" bar to enforcement of provisional rights.19

13. Id.
19. To illustrate how claim narrowing may act to curtail the rights of the inventor, consider the following situation: A potential infringer falls squarely within the scope of the claims as published in the patent application. During prosecution, the scope of the claims is narrowed so that the claims as issued are not "substantially identical" to the claims as published. However, the infringer still falls squarely within the scope of the narrowed claims. In such a case, even if the infringer had notice, no provisional rights may be available to the inventor. Thus, the reality of narrowing claims may act to forestall the application of provisional rights, even if the infringer falls squarely within the later issued claims.
IV. IMPLICATIONS OF THE NEW PUBLICATION REGIME

A. Earlier and Less Informed Decision Regarding Patenting

One of the main implications of the switch to publication at eighteen months is that the inventor could be forced to make an uninformed decision as to whether to continue to pursue patent rights or, alternatively, to seek trade secret rights. As discussed above, the inventor is typically unable to evaluate the scope of the potential patent rights that may be available. Because publishing the application destroys the inventor's right to seek trade secret protection, the inventor is essentially making an uninformed decision as to whether it is in the inventor's best interest to seek patent protection or, alternatively, to seek trade secret protection.

B. Transparency of Prosecution

Once the AIPA of 1999 was signed into law, it was still up to the PTO, as the administrative agency responsible for enforcing the law, to promulgate rules as to how the law would be followed. The PTO implemented the AIPA by imposing rule changes to the governing rules of patent practice before the PTO.20 The PTO, in its rule changes, actually went farther than the AIPA would seem to authorize. As discussed above, the AIPA authorized the publication of pending patent applications at eighteen months from their filing and the PTO rules provide for such publication. However, the PTO rules also allow the public access to the complete file history of the pending patent application after the eighteen-month date.21 That is, after eighteen months, not only the initially filed patent application is available to the public, but all of the dialogue between the inventor and the examiner is available to the public as well. In practice, this means that eighteen months after filing, anyone can see not just the patent application itself, but all the actions that have taken place with regard to the patent application; thus, the prosecution of the patent application has become completely transparent.

21. 37 C.F.R § 1.14(c)(2) states:
(2) File wrapper and contents. A copy of the specification, drawings, and all papers relating to the file of an abandoned or pending published application may be provided to any person upon written request, including the fee set forth in § 1.19(b)(2). If a redacted copy of the application was used for the patent application publication, the copy of the specification, drawings, and papers may be limited to a redacted copy.
C. Increased Competitor Monitoring: The Reduction of the Commercial Advantage of the Patenting Process

Because the entire prosecution history of the patent application becomes transparent after eighteen months, competitors are now able to monitor the patent efforts of another company in ways that were simply not possible under the previous system. The competitor is now able to see the actual claim language and prosecution history of the patent before the patent even issues. This access lessens the commercial advantage of the patenting process to the company seeking patent protection.

Consider the example of two competitors, Innovative Corp. and Competitor Corp., under the previous system wherein patent applications are not published until issuance. Innovative devotes extensive time and effort to research and development and generates a new innovation for which it applies for patent protection. Innovative and Competitor compete in the same market segment and Innovative suspects that Competitor may be attempting to develop the innovation that Innovative has developed. In order to discourage the efforts of Competitor, Innovative discloses their innovation in very general terms to Competitor and informs Competitor that Innovative has already begun its patenting efforts. The revelation that Innovative has already developed the innovation and is seeking patent protection may have a great effect on the research efforts of Competitor. Competitor has no way of knowing if Innovative’s patent will issue or what Innovative’s patent claims may preclude.

Competitor is now presented with three alternative possibilities: 1) Innovative’s patent will issue and will be broad enough to preclude Competitor from an entire product area; 2) Innovative’s patent will never issue; or 3) Innovative’s patent will issue, but the patent will be narrow enough that Competitor may be able to design around the patent.

With regard to the first possibility, if Innovative’s patent is able to preclude Competitor from commercializing its product, all of the research expenditures of time and money by Competitor in the area would be wasted. Additionally, not only have time and money been wasted, but Competitor may have slipped behind its competitors because the allocation of research time and money to the fruitless development occurs only at the expense of Competitor’s other developmental efforts. Thus, with the issuance of Innovative’s patent, all of Competitor’s production, marketing or commercialization efforts become a total loss.

With regard to the second possibility, Innovative may still reap a potential commercial advantage from its pending patent application. For example, if Innovative is able to portray its pending patent application in such a light as to make Competitor fear that Competitor’s research efforts may be wasted if the patent application issues, Competitor may abandon its research efforts and allow Innovative to proceed unopposed. In this case, Competitor’s analysis becomes a question of risk
management. That is, what is the possibility that Innovative's patent will issue and what is the potential preclusion effect of Innovative's patent if it issues? Because the PTO keeps Innovative's pending patent application in confidence, there is no other source but Innovative for information regarding Innovative's pending patent application. As may be imagined, Innovative may take the opportunity to manipulate Competitor's perception of Innovative's patent application in order to cause Competitor to abandon its developmental efforts. If Competitor perceives that the likelihood of Innovative's patent issuing is high and the likelihood that the patent will preclude Competitor's entrance into the market is also high, then Competitor logically will reallocate its research efforts into another project - a project in which Competitor believes that it may have some possibility of commercializing its innovation.\footnote{Even if Competitor decides to proceed with its development, Competitor's developmental efforts may be considerably hampered. For example, hotshot engineers typically prefer not to be associated with risky projects that may have to be discontinued. Thus, the best engineers and scientists typically request to be transferred into other developmental areas. With the exodus of research talent from the developmental team, Competitor's efforts at development may be further hampered.}

With regard to the third possibility, wherein Innovative's patent will issue, but the patent will be narrow enough that Competitor may be able to design around the patent, the potential effect of Innovative's patent on Competitor may again be quite large. Even though Competitor may eventually be able to sell a product similar to Innovative's, once Innovative's patent issues, Competitor is back to square one. That is, once Innovative's patent issues, Competitor may no longer be able to sell the product it has been developing and must develop a new, although similar or re-designed, product. Either substitution or re-design will cost Competitor time and money, thus giving Innovative an advantage. Even if Competitor is eventually able to sell a similar product to Innovative's, Innovative has gained the advantages of being first to market and of decreased production cost as compared to Competitor.

Under the new regime, Competitor knows it will have access to Innovative's patent prosecution efforts at eighteen months, long before Innovative's patent ever issues. Competitor will be able to see the scope of Innovative's claims at the time of the application's publication and may begin developing around Innovative's claims immediately. Competitor will also be able to trace the development of Innovative's claims as the prosecution continues and will be able to predict fairly accurately when Innovative's patent will issue. Because a product only infringes a patent after the patent has issued, Competitor may continue selling a product that would be precluded by the patent up until the day the patent issues. Once the patent issues, Competitor may choose to abandon the product, or roll out a redesigned product. Competitor may thus compete directly with Innovative, using Innovative's own product up until the date that Innovative's patent issues, and derive great advantage from being an early player in the field by seizing market share. Once Innovative's patent issues, Competitor can maintain its market
share by rolling out a redesigned product. Because Competitor will have accurate information as to the status and scope of the claims of Innovative's patent application fairly early in prosecution, much of Innovative's advantage disappears and Competitor's risks are reduced.

With regard to the first possibility discussed above, wherein Innovative's patent issues and is broad enough to preclude Competitor from an entire product area, the potentially devastating effect on Competitor is reduced. Competitor has been able to accurately monitor the prosecution of Innovative's patent from eighteen months onward. Competitor knows the scope of the claims and can predict when Innovative's patent will issue. After eighteen months from the filing date, Competitor may analyze Innovative's patent and decide to terminate its developmental efforts at any time and at any stage. Innovative maintains the advantage of eliminating Competitor as a competitor for a certain product; however, by killing development at such an early phase, Competitor has not made the substantial investments in time and effort in the product that Competitor might have otherwise made. Instead, Competitor is able to reassign its resources to other products (possibly other products with which it is still in direct competition with Innovative) and thus minimize its losses.

Under the previous system, Competitor had no way of knowing when Innovative's patent might issue, except through information given by Innovative. Because of the transparency of patent prosecution at eighteen months, Competitor now is able to accurately project its development and potential revenue before Innovative's patent issues and may decide to proceed anyway. For example, Competitor may decide that Innovative's patent will not issue for a significant amount of time and that Competitor will have advance notice of the issuance. In industries with short product lifecycles, Competitor may decide to market its product and reap the profits before abandoning the market when Innovative's patent issues.

With regard to the second possibility, wherein Innovative's patent may never issue, the ability of Innovative to reap a commercial advantage is virtually destroyed. Because of the transparency of the prosecution of the patent application, Competitor is able to gain a clear picture that Innovative's patent application may not issue. Although Competitor may not be able to determine at eighteen months that Innovative's patent is a complete waste, Competitor may continue development knowing that Innovative's patent application has serious

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23 This scenario ignores any provisional rights that Innovative may have accrued after the publication of the pending patent application at eighteen months. However, as noted above, the accrual of provisional rights by Innovative may be quite tenuous. Assuming that Competitor has actual knowledge of Innovative's patent application, the claims of Innovative's patent application at publication must be substantially identical to the claims of Innovative's patent at issuance in order for provisional rights to accrue. As mentioned above, the accrual of Innovative's patent rights is thus quite uncertain due to the realities of patent prosecution as well as the uncertainty in the term "substantially identical."
problems and any possible resolution of the problems could take months. Competitor does not have to rely on Innovative for information regarding Innovative's patent application since Competitor can observe Innovative's patent prosecution directly and make an accurate assessment of the likelihood that Innovative's patent will issue. Consequently, Innovative's ability to deflect Competitor's developmental efforts based on Competitor's fear of potential patent infringement is shattered.

With regard to the third possibility, wherein Innovative's patent will issue but the patent will be narrow enough that Competitor may be able to design around the patent, Innovative's ability to reap a commercial advantage is also greatly minimized. Again, because of the transparency of the prosecution of the patent application, Competitor is able to follow the changes to the scope of the claims of the patent application as they occur. Additionally, Competitor knows that it has months from when Innovative's claims are finalized before Innovative's patent issues. Because Competitor knows the exact claim language, Competitor is able to start designing around the claims as soon as the claim change is made. Because Innovative's patent, including the amended claims, will not issue until months after Innovative makes any changes to the claims, Competitor has months in which to accomplish its design around the claims.

Thus, by shifting away from a system in which a patent application is preserved in confidence until issuance to a system in which pending patent applications are published at eighteen months, the government has acted to reduce the commercial advantage to the applicant for patent. In each of the three possible scenarios discussed above, the commercial advantage of the applicant for patent compared to the competitor is greatly reduced. Thus, publication at eighteen months serves to shift the balance of power away from the innovator and in favor of the competitor.

V. CONCLUSION

The American Inventor's Protection Act of 1999, at least with regard to the eighteen-month publication, does not seem to be directed toward the protection of the interests of American innovators. Publication of pending patent applications destroys the inventor's ability to evaluate the deal being offered by the government because the inventor is not able to determine what patent rights the government is willing to grant until long after the inventor has been forced to forfeit trade secret protection for the innovation. Additionally, the PTO's decision to allow transparent access to the prosecution history of patent applications after the eighteen-month date serves to drastically curtail

24. Time from allowance to issuance is typically four to six months.
the commercial advantage of the patent process to the applicant for patent.