

## In the Process of Controverting Its Constitutionally Given Purpose the U.S. Patent System Discriminates Against Inventors with Limited Financial Means

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### Introduction

In 1963 Robert Kearns invented an intermittent windshield wiper.<sup>1</sup> He was a graduate student at the time, with a wife and four children, spending a considerable portion of his small income on wiper components.<sup>2</sup> When it came time to patent his invention, he did not have the resources to pay for preparing and filing a patent application.<sup>3</sup> However, Kearns was more fortunate than other independent inventors in that he had a friend who was able and willing to pay for the patent application in exchange for the patent rights.<sup>4</sup> Kearns had the opportunity to reclaim his patent rights several years later.<sup>5</sup>

Not all independent inventors are so fortunate. Many lack the financial resources to obtain patent rights. Others do not have the financial resources to defend their patent rights, once they get them. As the costs of obtaining a patent rise, and as more of those costs must be borne by the patent applicant, independent inventors with limited financial resources will become a thing of the past.

Recent legislative acts indicate that the U.S. Patent and Trademark Office (Office) is on its way to becoming fully user-funded.<sup>6</sup> In order to become fully user-funded, the Office is increasing its patent application processing charges, requiring fees to

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1. John Seabrook, *The Flash of Genius*, NEW YORKER, Jan. 11, 1993, at 38, 42.

2. *Id.* at 44.

3. *Id.* at 45.

4. *Id.* at 44-45.

5. *Id.* at 47.

6. See *supra* notes 35-54 and accompanying text; see also Act of Dec. 12, 1980, Pub. L. 96-517, 94 stat. 3015, 3017 (codified as amended at 35 U.S.C. § 41 (1988)) (indicating amendments to make the office user-funded).

maintain a patent for the maximum seventeen-year period, and adding surcharges to the current fees. Unfortunately, the Office has failed to provide alternate payment plans for inventors with limited financial means.

Because the Office has continued to raise costs without providing alternate payment plans for inventors with limited financial resources, the patent system functionally prohibits small entities with limited financial means from obtaining U.S. patents. This prohibition occurs even if inventors with limited financial means are capable of paying a patent attorney or agent to prepare their patent applications. This prohibition is discriminatory because among inventors with patentable inventions, financial viability alone can determine who has access to Constitutionally given patent rights.<sup>7</sup> In addition, this prohibition is contrary to the Office's Constitutional purpose of promoting the advancement of science and technology.<sup>8</sup>

Part I of this article discusses the history and purpose of the U.S. patent system. Part II discloses the costs associated with obtaining a patent. Part III reviews options for inventors with limited financial means to offset these costs. Part IV discusses how these costs make the patent system discriminatory against inventors with limited financial means and how this discrimination undermines the purpose of the U.S. patent system. Part V suggests patent system modifications that would minimize this discrimination and, in the process, further the advancement of science and technology.

### *Part I: History and Purpose of the U.S. Patent System*

The advancement of technology is essential to the survival of the American economy. This country's founders foresaw the importance of technological advancement and authorized the U.S. Congress "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries. . . ."<sup>9</sup> Technology cannot be advanced if inventors expend energy inventing the same items repeatedly, if inventors have no incentive to invent, or if society does not know about items that already have been invented. Congress, therefore, promotes the advancement of technology by discouraging secrecy, encouraging public invention disclosures, and creating conditions in which expending the funds and energy to de-

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7. See *supra* note 9 and accompanying text.

8. See *supra* note 9 and accompanying text.

9. U.S. CONST. art. I, § 8, cl. 8.

velop improvements and new devices will be warranted.<sup>10</sup> Thus, the U.S. patent system is premised upon the idea that if people disclose inventions and improvements, then science and technology will advance.<sup>11</sup>

To encourage public disclosure, Congress enacted the 1790 Act to promote the progress of the useful arts.<sup>12</sup> This Act gave inventors or their assigns, administrators, or heirs the right to exclude others for up to 14 years from "making, constructing, using, and vending to others" a patented invention.<sup>13</sup> Public disclosure was to be evidenced by submission of a patent application and grant of a patent.<sup>14</sup>

A patent issuance, even today, is considered a contract between the inventor(s) and society. Society's consideration for this contract is to give the inventor the right to exclude others, via the court system, from making, using, or selling the invention for a limited time. The inventor's consideration is prompt public disclosure of an invention that in some way promotes the progress of science and technology.<sup>15</sup>

Pursuant to the Act of 1790, the Secretary of State, Attorney General, and Secretary of War determined whether an invention "promoted the progress of the useful arts."<sup>16</sup> An invention promoted the progress of the useful arts if it was sufficiently useful and important.<sup>17</sup> Because these heads of state did not have the time to perform the usual duties of their offices and grant patents, very few patents were granted.<sup>18</sup> This lack of attention to the patent system enraged inventors and encouraged them to convince Congress to repeal the 1790 Act and pass the 1793 Act.<sup>19</sup>

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10. S. Doc. No. 21, 85th Cong., 1st Sess., 1 (1957).

11. The Congress promotes the progress of science and technology indirectly by providing for inventors to be secure in their right of exclusivity for a limited time. The single and sole object of the patent system is to promote progress and promoting progress "necessitates a prompt disclosure of the invention, . . . to the public." F.W.H. Clay, *The Relation of the Examiner to the Inventor and His Attorney*, 1 J. PAT. OFF. SOC'Y 9 (1918).

12. 2 ANNALS OF CONG. 2212 (1834).

13. *Id.*

14. *Id.*

15. Clay, *supra* note 11, at 14-15.

16. 12 CONG. DEB., Part IV, App. 101 (1836). The Act provided for the decision to be made by any two of these three officials. *Id.*

17. *Id.*

18. H.R. REP. NO. 1923, 82d Cong., 2d Sess., 4 (1952).

19. 3 ANNALS OF CONG. App. 1432 (1849). The Act was passed at the insistence of the industrial classes because only three patents were granted during the first year of the 1790 Act, and only 60 were granted during the few years this Act was law. William I. Wyman, *The Patent Act of 1836*, 1 J. PAT. OFF. SOC'Y 203 (1919).

The Act of 1793 essentially established an Invention Registration System. "[P]atents were granted to anyone who applied on fulfilling the formal requirements and filing the necessary papers and fees."<sup>20</sup> No examination was required, and "the attributes of the patent [were] ascertained only by expensive litigation."<sup>21</sup> This registration system promulgated questions of patent originality, duplication, and frivolousness. Because no one in the patent system assured that the disclosures were new and useful, the courts became overburdened with litigation during the forty years the 1793 Act was in effect. Only litigation determined the value and attributes of a patented invention.<sup>22</sup>

The 1793 Act precipitated the following problems: worthless patents that infringed upon each other; patent monopolies that invaded the rights of bona fide patentees; lawsuits that burdened the court system; and fraud by persons copying inventions in the Office's model room.<sup>23</sup> In response to these problems, Congress enacted the Patent Act of 1836,<sup>24</sup> which serves as the foundation of present U.S. patent law. The 1836 Act created the Office, headed by a Commissioner of Patents, and staffed examiners who examine patent applications.<sup>25</sup>

The U.S. Constitution grants Congress the authority to promote the advancement of science and technology. Congress does this by encouraging public disclosure of inventions. Congress encourages public disclosure of inventions by overseeing a patent system that rewards inventors with the right to exclude others in exchange for prompt public disclosure of inventions. However, since the 1980 amendments, acquisition of this reward is dependent not only upon public disclosure of a patentable invention but also upon the payment of fees.

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20. H.R. REP. NO. 1923, *supra* note 18, at 5.

21. Wyman, *supra* note 19, at 203-204.

22. *Id.* The Act of 1793 gave no power to the Secretary of State or any other heads of state to refuse a patent for lack of novelty or usefulness. "The only inquiry [was], whether the terms and forms prescribed [were] complied with. The granting of patents, therefore, [was] but a ministerial duty." 12 CONG. DEB., *supra* note 16. The term useful as used in the 1793 Act became synonymous with not "hurtful, injurious or pernicious." *Id.* Because so many patents were worthless under this 1793 Act, the U.S. patent system's purpose, to encourage the promotion of science and technology, was undermined. Wyman, *supra* note 19, at 206.

23. 12 CONG. DEB., *supra* note 16.

24. 12 CONG. DEB., Part IV, app. xl (1836). Prior to 1836, the acts to promote the progress of the useful arts became Patent Acts.

25. H.R. REP. NO. 1923, *supra* note 18, at 4-5.

*Part II: Costs of Obtaining a U.S. Patent*

There have always been fees associated with obtaining a U.S. patent.<sup>26</sup> Presently, patent application preparation costs and Office fees are the two major costs associated with obtaining a U.S. patent. To ensure that the invention meets all preliminary patentability requirements<sup>27</sup> and that the patent application satisfies all formal requirements,<sup>28</sup> inventors should hire a patent attorney or patent agent prior to filing for a patent.<sup>29</sup> In addition, the Office requires payment of patent application processing and utility pat-

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26. The original Patent Act, the 1790 Act to promote the progress of the useful arts, required patentees to pay fees for petition receiving and filing, specification filing, patent preparation, seal affixing, and patent delivery before receiving their patents. 2 ANNALS OF CONG., *supra* note 12, at 2214. If a patent was not granted, then payment of the patent preparation, seal affixing, and patent delivery fees were not required. *Id.*

27. A patentable invention must be a new, useful, and nonobvious process, machine, manufacture or composition of matter or any new, useful, and nonobvious improvement thereof. 35 U.S.C. §§ 101 and 103 (1988). In addition, the invention's patentability must not be barred by any of the conditions listed in 35 U.S.C. § 102 (1988). These conditions include:

- (a) the invention must not have been known or used by others in this country, or patented or described in a printed publication in this or a foreign country before the invention thereof by the applicant for the patent; or
- (b) the invention must not have been 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 the patent in the United States; or
- (c) the invention must not have been abandoned; or
- (d) the invention must not have been patented or caused to be patented or was the subject of an inventor's certificate, by the applicant or his legal representatives in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States; or
- (e) the invention must not have been described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another before the invention thereof by the applicant for patent; or
- (f) the inventor himself or herself did not invent the subject matter sought to be patented; or,
- (g) before the applicant's invention thereof the invention was made in this country by another who has not abandoned, suppressed, or concealed it.

28. A patent application must be made by the inventor and shall include a specification as prescribed by 35 U.S.C. § 112 (1988), a drawing as prescribed by 35 U.S.C. § 113 (1988) and a declaration of inventorship as prescribed by 35 U.S.C. § 115 (1988). 35 U.S.C. § 111 (1988).

29. A patent agent is a person who is registered to practice before the Office but is not admitted to the bar. A patent attorney is a person who is admitted to the bar and who is registered to practice before the Office.

ent maintenance fees to obtain and maintain a utility patent<sup>30</sup> for the statutory seventeen-year period.<sup>31</sup>

### Patent Application Preparation Costs

In the patent application process, the first costs inventors incur are the patent attorney or agent costs. The cost for a patent attorney or agent to prepare a patent application is usually based upon an hourly rate. The charge per hour depends upon the attorney's or agent's years of experience, geographical location, and area of technical expertise. The number of hours inventors need of the attorney's or agent's time depends upon the complexity of the invention, the amount of preliminary work the inventors have already done,<sup>32</sup> whether inventors want a patent search done prior to the filing of their patent applications, and the ease with which the patent application can be prosecuted.<sup>33</sup> In addition, inventors may have to pay a draftsman to prepare drawings which supplement the patent application. These patent application preparation costs can easily total many thousands of dollars.<sup>34</sup> If inventors cannot

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30. There are three types of patents: design, plant, and utility. A design patent protects the design of an article. A plant patent protects a new plant variety. A utility patent protects a new, useful, and nonobvious article of manufacture, process, machine or composition of matter. BLACK'S LAW DICTIONARY 778 (abr. 6th ed. 1991).

31. 35 U.S.C. § 41 (1988). The statutory exclusionary period for a utility patent is 17 years. 35 U.S.C. § 154 (1988).

32. The amount of preliminary work an inventor can do may range from nothing to writing the specification (text that supports the claimed invention) and claims (see *supra* note 55 and accompanying text) of the patent application. Inventors are not required to have a patent attorney or agent write and prosecute (see *supra* note 33) their patent applications. Inventors may write and prosecute their own patent applications. However, it is very difficult for inventors, who are not trained in the patent examining procedure and the patent laws, to ensure that their inventions are properly claimed, and therefore protected, without some consultation with a patent attorney or agent. Jerry Lemelson, the independent inventor with more patents than anyone else presently living, states: "It takes great skill to craft a patent application. . . . You have to stake the four corners of your invention broadly enough so that they give you maximum protection. . . . Of course, if you write it too broadly you may invalidate your claim, because it will read on prior art. But if you write too narrowly you may miss the thing about the technology that turns out to be truly valuable." Seabrook, *supra* note 1, at 50 (quoting Jerry Lemelson).

33. Prosecution is a patent law term of art that identifies the process of filing a patent application and receiving a patent. Patent prosecution usually entails: inventors or their authorized representatives filing a patent application; the Office responding via an Office Action; the inventors or their representatives responding to the Office Action, if necessary; and the Office replying with a final Office Action. The final Office Action is either an allowance of a patent or a final rejection of the patent application's disclosure as unpatentable. If the patent application is amended or extensions of time or additional interactions with the Office are needed, the inventors must pay for more hours of the attorney's or agent's time.

34. The cost per hour for a patent attorney in the Twin Cities area of Minnesota ranges from \$100 to \$250 per hour. The cost of a patent agent ranges from \$50 to \$125 per hour. A patent application usually takes a minimum of ten hours to write.

pay these fees, they cannot obtain patent applications, and therefore, cannot obtain U.S. Patents.

### Office Costs

Inventors must also pay Office fees, and in 1980, Congress enacted legislation requiring the Commissioner of Patents to increase fees in order to ensure that the Office's utility patent application process would be 25% user-funded.<sup>35</sup> The fees were to increase so that by 1982 the utility patent application fees were to recover 25% of the patent applications' processing cost to the Office.<sup>36</sup> In addition, by 1982, fees for all other patent related services or materials were to "recover the estimated average cost to the Office of performing the service or furnishing the material."<sup>37</sup> In other words, all patent-related services and materials, other than application processing, were to be 100% user-funded.<sup>38</sup>

This 1980 legislation also established utility patent maintenance fees. After a utility patent is issued, maintenance fees must be paid at three years and six months, seven years and six months, and eleven years and six months in order to keep the patent from expiring prior to the seventeen-year statutory period.<sup>39</sup> By fiscal

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A patentability search to see if there are patents or publications disclosing the inventor's invention can easily cost \$750. In addition, a draftsman usually charges about \$100 per sheet of drawings. The number of sheets required depends upon the complexity of the invention. Complex mechanical inventions may require five to twelve sheets and less complex inventions may require one to five sheets. Interview with Grady Frenchick, patent attorney and Adjunct Professor of Law at the University of Minnesota (Oct. 29, 1992).

35. Act of Dec. 12, 1980, Pub. L. 96-517, 94 Stat. 3015, 3017 (codified as amended at 35 U.S.C. § 41 (1988)). This legislation also requires that the design patent application process be 50% user-funded. *Id.*

36. *Id.* at 3017. All of the filing through disposition utility patent application fees are to recover 25% of the Office's patent application processing cost. Disposition may be by issuance or abandonment. *Id.*

37. *Id.*

38. Patent related services and materials, other than patent application processing, include items such as: printing and distributing upon request Office public information pamphlets; copying and sending upon request file wrappers, which are a record of all the interactions between the Office and the inventors or their representatives prior to a patent being granted; storing documents at inventors' requests that verify dates of inventions, recording assignments of patent rights, and filing certificates of correction.

39. *Id.* There is a grace period of six months to pay utility patent maintenance fees. Design patents do not have maintenance fees. *Id.* Many inventors are receiving profits or royalties from their utility patents by the time their maintenance fees are due. These inventors usually have no trouble paying their maintenance fees. However, there are other inventors whose patented inventions are not financially successful for decades. John Reilly, *Impact of the New Patent and Trademark Fee Bill: What Hath Been Wrought?*, 65 J. PAT. OFF. SOC'Y. 166, 173 (1983). The inventors with limited financial means and no commercially successful patent have trouble paying the maintenance fees. Inventions that are not commercially success-

year 1996, these maintenance fees will recover from Office users another 25% of the estimated Office cost to process utility patent applications.<sup>40</sup> The Commissioner of Patents has the authority to adjust the fees every three years to recover 50% of the cost for utility patent application processing and 100% for all other Office services and materials.<sup>41</sup>

The 1980 legislation was enacted during a time of heightened concern about the United States losing its first and second place exporter status.<sup>42</sup> Congress believed that the weaknesses in the patent system, caused by the Office's under-funding, contributed to the country's declining export status.<sup>43</sup> "[This bill] represents an effort to reverse the current decline in U.S. productivity by strengthening the patent and copyright systems. . . ." <sup>44</sup> Further, this legislation was enacted to "strengthen the financial resources of the Patent Office. . . ." <sup>45</sup> Congress did not, however, seriously consider whether this fee restructuring would promote the advancement of science and technology by encouraging public disclosure of inventions. Congress apparently thought that if the Office was better funded, patents would be dispositioned more quickly and there would be a greater incentive to publicly disclose inventions.<sup>46</sup>

In enacting the 1980 legislation, Congress did consider the fact that some inventors would not be able to publicly disclose their inventions because they were incapable of paying the increased fees.<sup>47</sup> In spite of Congress' concern for inventors unable to pay the fees, the resulting Act of 1980 encouraged only those with the abil-

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ful within a decade are just as important as those inventions that are an immediate commercial success. Those inventions that are not commercially successful within a decade may become commercially successful within two decades or serve as building blocks for subsequent inventions that exhibit immediate commercial success.

40. Act of Dec. 12, 1980, Pub. L. 96-517, 94 Stat. 3017 (codified as amended at 35 U.S.C. § 41 (b)).

41. *Id.*

42. 126 CONG. REC. 12,983 (1980).

43. *Id.*

44. *Id.* at 29,895 (1980).

45. *Id.*

46. One of the four major thrusts of this 1980 legislation was to strengthen the financial resources of the Office "to provide fast and accurate processing of patent applications by revising the fee structure of the Office." *Id.*

47. In the House during discussion of the 1980 legislation just prior to its passing, one representative raised the concern that overall the patent fees would double in order to cover 50% of the cost to process the patent application. The Judiciary Committee Chairperson replied that over the life of the patent the fees would double with this new legislation. Ohio Congressman, Mr. Miller, stated:

I am concerned that if inventors who are not with large corporations but are on their own come up with some new expertise or new technology, that they may not be in a position to afford to patent that idea. . . . I am concerned about independent inventors or small businessmen who will apply for patents in the future. If they cannot afford to pay the



ity to pay the fees to publicly disclose their inventions. Inventors who could not pay the fees were actually discouraged from publicly disclosing their inventions because they knew that they could not afford to pay the patent application preparation and Office fees.

In 1982, the concern about the effects of the increased fees on inventors with limited financial means encouraged Congress to create the "small entity" discount for patent application processing and patent maintenance fees.<sup>48</sup> Small entities<sup>49</sup> now pay 50% of the

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increase [sic] fee, will we be preventing them from helping us to develop new technologies . . . ?

*Id.* at 29,900 (1980). The Judiciary Committee Chairperson, Mr. Kastenmeier, agreed with the Ohio Representative's statements and answered his question in the affirmative. The Committee Chairperson then replied that Congress oversees the fee increases so the House and Senate will monitor the increases. The legislation was then passed. *Id.*

48. Act of Aug. 27, 1982, Pub. L. 97-247, 96 Stat. 317 (creating a small entity discount for patent processing and maintenance fees for those who qualify). Patent application processing fees include fees for the following: filing a patent application, including excess claims in a patent application, patent issuance, patent reissue, disclaimer filing, appeal from the examiner to the Board of Appeals, revival of an unintentionally abandoned application, and petition for extension of time. Maintenance fees include the fees payable three and one-half years, seven and one-half years, and eleven and one-half years after a utility patent issues. 35 U.S.C. § 41(a) and (b) (1988). All of these fees are not paid with every patent application. Every utility patent application requires payment of at least the filing fee and excess claim fees, if more than a certain number of claims are needed to define the invention. The issuance and maintenance fees are required if the patent is granted.

49. Small entities include "independent inventors and nonprofit organizations as defined in regulations established by the Commissioner of Patents and Trademarks, and small business concerns as defined in section 3 of the Small Business Act and by regulations established by the Small Business Administration." Act of Aug. 27, 1982, Pub. L. 97-247, 96 Stat. 317.

The Manual of Patent Examining Procedure defines a small entity as "an independent inventor, a small business concern or a nonprofit organization." Manual of Pat. Examining Proc. § 1.9(f). This Manual defines an independent inventor as any inventor

who (1) has not assigned, granted, conveyed, or licensed, and (2) is under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who could not likewise be classified as an independent inventor if that person had made the invention, or to any concern which would not qualify as a small business concern or nonprofit organization under this section.

*Id.* at (c). A small business concern is any business concern that does not have more than 500 employees and that has not

assigned, granted, conveyed or licensed, and is under no obligation under contract or law to assign, grant, or license any rights in the invention to any person who could not be classified as an independent inventor if that person had made the invention, or to any concern which would not qualify as a small business concern or a nonprofit organization under this section.

*Id.* at (d) (citing 13 C.F.R. § 121.12 (1989)). A nonprofit organization is a "university or other institution of higher education located in any country," a tax exempt organization, or any "nonprofit science or educational organization qualified under a nonprofit organization statute of a state of this country," and any nonprofit organization

standard patent application processing and patent maintenance fees.<sup>50</sup> The effect of this discount, however, has been negated because in 1990 Congress passed the Omnibus Budget Reconciliation Act, which imposes a 69% surcharge on all patent processing and maintenance fees.<sup>51</sup> The Commissioner of Patents now determines what the patent processing and maintenance fees need to be to recover up to 50%<sup>52</sup> of the actual costs to process a patent application. For fiscal years 1991 through 1995, the Commissioner will add a 69% surcharge to those fees.<sup>53</sup> This added surcharge was a response to the Senate Judiciary Committee's recommendation that the Office's patent application processing be 100% user-funded.<sup>54</sup>

At the end of 1992, the filing fee for each utility patent application, regardless of the number of claims,<sup>55</sup> was \$500.<sup>56</sup> If the patent application contained more than three independent claims, there was a charge of \$52 for each claim in excess of three.<sup>57</sup> Furthermore, if there were more than 20 claims in the patent application, then there was an added fee of \$14 for each claim in excess of 20.<sup>58</sup> There was also a \$160 fee for each application containing a multiple dependent claim.<sup>59</sup> For an invention of any complexity,

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in another country that would qualify as a nonprofit organization if located in this country. *Id.* at (e).

50. Act of Aug. 27, 1982, Pub. L. 97-247, 96 Stat. 317.

51. Omnibus Budget Reconciliation Act of 1990, Pub. L. 101-508, 104 Stat. 1388, 1388-391 (Plan enacted to help reconcile the budget for 1991).

52. According to the 1980 legislation, the Office is to increase the maintenance fees to ensure that by fiscal year 1996 they will recover 25% of the actual patent application processing costs for the Office. Therefore, before fiscal year 1996 the total costs recovered by the Office may not have reached 50%. See *supra* notes 39 and 40, and accompanying text. That is why the Commissioner will determine what the patent processing and maintenance fees should be to recover up to 50% of the actual Office costs to process a patent application. Design patents do not have maintenance fees so their patent processing costs alone must recover 50% of the actual patent processing costs to the Office. Act of Dec. 12, 1980, Pub. L. 96-517, 94 Stat. 3015, 3017 (codified as amended at 35 U.S.C. § 41 (1988)).

53. Omnibus Budget Reconciliation Act of 1990, Pub. L. 101-508, 104 Stat. 1388, 1388-391.

54. H.R. REP. NO. 881, 101st Cong., 2d Sess., at 159 (1990) (in order to eliminate \$495 million from its budget, the Senate Judiciary Committee recommended that users fully fund the Office.).

55. The claims are the last set of numbered paragraphs in a patent application. Claims legally define the invention especially for infringement purposes. BLACK'S LAW DICTIONARY 169 (abr. 6th ed. 1991).

56. Act of Sept. 7, 1992, Pub. L. No. 102-367, § 41, 1992 U.S.C.C.A.N. (106 Stat.) 1021 (to be codified at 35 U.S.C. § 41 (1993)).

57. *Id.*

58. *Id.* This \$14 fee per claim applies regardless of whether the claims are dependent or independent. *Id.*

59. *Id.* A dependent claim contains a reference to a previously listed claim and then specifies a further limitation on the claimed subject matter. A multiple dependent claim contains a reference, in the alternative, to more than one claim previously listed and then specifies a further limitation. 35 U.S.C. § 112 (1988).

even a small entity would have to pay between \$300 and \$500 just to file a patent application.

If a utility patent application is filed and a patent granted, then the patent issue fee was \$820.<sup>60</sup> The maintenance fees to keep the patent from expiring during its seventeen-year life totalled \$3,940.<sup>61</sup> Even with the 50% discount, small entities would be charged about \$2,500 for issuance and maintenance of a utility patent.<sup>62</sup> To file for, obtain, and maintain a utility patent, a small entity must pay approximately \$3,000. This total does not include charges required if the inventor appeals a patent examiner's rejection. It also does not include the expense of prosecuting a utility patent application for a more complex invention. Overall, small entities must pay at least \$5,000<sup>63</sup> to apply for, obtain, and maintain their patent rights.

*Part III: Means for Inventors with Limited Financial Resources to Offset or Minimize Costs*

Presently, there are very few options available for avoiding or offsetting the costs of filing for, obtaining, and maintaining a utility patent. There is only one statutory provision for fee waiver in the patent laws.<sup>64</sup> This statutory provision allows a government department, agency, or official to request a fee waiver for "any service or material related to patents."<sup>65</sup>

If inventors' maintenance fee payments are late and the inventors prove the delay was unavoidable, then the Commissioner has the discretion to cancel the expiration of the inventors' patents.<sup>66</sup> However, there are no statutory provisions for Office fee waivers for entities other than the Government.

Since the law is void of any patent fee waiver provisions for inventors with limited financial means, assistance in reducing the cost of patent application preparation should be available from an alternate source, such as an American Bar Association-affiliated pro bono Program, an American Intellectual Property Lawyer Association-affiliated sliding-fee scale program, or a Legal Aid Society

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60. Act of Sept. 7, 1992, Pub. L. No. 102-367, § 41, 1992 U.S.C.C.A.N. (106 Stat.) 1021 (to be codified at 35 U.S.C. § 41 (1993)).

61. *Id.*

62. *Id.*

63. This total includes the cost of patent application preparation.

64. 35 U.S.C. § 41(e) (1988).

65. *Id.* "The Commissioner [of Patents] may waive the payment of any fee for any service or material related to patents in connection with an occasional or incidental request made by a department or agency of the Government, or any officer thereof." *Id.*

66. 35 U.S.C. § 41(c) (1988).

program. However, none of these organizations sponsors programs that assist inventors with obtaining patent applications for a reduced fee that each inventor can reasonably afford to pay.<sup>67</sup>

The final option available to offset the costs of obtaining a patent is acquisition of a financial supporter who will pay all fees in exchange for the rights to the invention. This option is risky because the more people who see and hear about an invention before it is patented the greater the opportunity for the invention to be misappropriated.<sup>68</sup> To obtain financial support, inventors may have to disclose their inventions to several people and/or organizations. Large organizations may require inventors to make presentations to several managers before deciding to fund the acquisition of a patent. In addition, inventors may have to disclose

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67. The Legal Aid Society of Minneapolis, in Hennepin County, Minnesota, does not have the resources to keep a patent attorney on staff. It refers requests for such services to the Legal Advice Clinics. Telephone Interview with Jeremy Lane, Executive Director, Minneapolis Legal Aid Society (Sept. 30, 1992).

Hennepin County Bar Association-Legal Advice Clinics, Ltd. (LAC) is a non-profit corporation in Hennepin County which provides free legal services to eligible, low-income clients through volunteer attorneys. LAC screens clients for financial eligibility and then refers eligible clients with limited financial means to volunteer attorneys. LAC has an Intellectual Property Panel, and eligible clients can be referred to one of the patent attorneys for advice. These patent attorneys rarely write patent applications or non-disclosure agreements for these clients. They usually provide guidance through consultation. Telephone Interview with Candee Goodman, Director of the Legal Advice Clinics (Feb. 8, 1993).

The Minnesota State Bar Association does not directly run any pro bono programs, and it does not have any patent law pro bono programs listed in its 1992 Directory of pro bono Opportunities. Telephone Interview with Nancy Kleeman, Director of Volunteer Legal Services, Minnesota State Bar Association (Oct. 2, 1992).

The American Bar Association encourages and provides support to local and state Bar Associations that want to establish a pro bono program in their area. At present there are no patent related pro bono programs listed in their directory of local programs. Telephone Interview with Dennis Kaufman, Director of the Center for Pro Bono, American Bar Association (Feb. 11, 1993).

The Minnesota Inventors Congress serves as a resource center for inventors but sponsors no sliding scale fee or free patent application preparation program. The Minnesota and American Intellectual Property Law Associations have no inventor-with-limited-financial-means assistance programs. This information was obtained by calling the organizations' headquarters and asking for information on programs available for inventors with limited financial means to have patent applications written free or for a reduced fee.

68. After Kearns demonstrated his invention to Ford representatives on four occasions, Ford "dismissed" Kearns and proceeded to infringe his patents. Kearns' invention was misappropriated even after he had obtained patent rights. Seabrook, *supra* note 1 at 44-45. "When Kearns filed suit against the Ford Motor Company, in 1978, Ford did what corporations usually do in patent cases: it began stalling, in the hope that Kearns would lose heart or run out of money." *Id.* at 49. By the time Kearns had received his second favorable judgment against one of the big three automakers, he had spent \$10 million on legal fees. *No Shortage of Saviors*, WASH. TIMES, June 14, 1992, p. A14.

their inventions to many organizations before they raise enough money to obtain a patent.

To discourage misappropriation, inventors should have each potential financial supporter sign a non-disclosure agreement prior to any invention disclosure. Most inventors would have to pay an attorney to prepare a non-disclosure agreement for them. Inventors with limited financial means may not have the money to pay an attorney to prepare this agreement. These inventors also may not have the money to travel to corporate headquarters to convince executives to support their idea. In addition, these inventors may not have the money to litigate if a potential financial supporter misappropriates their ideas. Inventors with limited financial means also may have to pay an attorney to review any agreements a potential financial supporter asks them to sign. Thus, inventors with limited financial means in many instances do not even have the money needed to obtain a legitimate financial supporter.

For inventors who do not have the money which is often needed to acquire financial support, there are very few options available to offset the \$5,000 minimum cost to obtain a patent. Because the U.S. patent system does not provide ways for inventors of limited financial means to obtain patents, these inventors are functionally prohibited from acquiring the right to exclude others from utilizing their inventions. This prohibition is economic discrimination.

#### *Part IV: Importance of This Patent System Discrimination*

The U.S. patent system's financial discrimination is important for two primary reasons. First, the patent right to exclude originates in the Constitution; thus, every American has a right to an equal opportunity to acquire it. Second, when everyone with a patentable invention does not have an equal opportunity to acquire patent rights, the purpose of the patent system is undermined. Instead of furthering the advancement of science and technology by encouraging public disclosure, the patent system discourages public disclosure among those inventors who are incapable of paying the fees.<sup>69</sup> If there is no incentive to publicly disclose an invention for

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69. "All patent attorneys have their indigent, lone inventors. We have never had to go looking for *pro bono publico* work. It has always been with us, like the poor. . . ." Reilly, *supra* note 39, at 166, 172 (1983). With the increased fees "the little inventor will disappear and we will all be losers. Not only patent lawyers. I'm talking about all the people in the country." *Id.* at 172-73. "[The new fee bill] will reduce the number of discoveries and the number of patents. . . just when we need them most." *Id.* at 174. "These tax-fees controvert the purpose of this clause of the

those who cannot obtain the reward of the right to exclude, society will lose access to the invention.

Equal rights and equal opportunity are fundamental. The Bill of Rights was added to the Constitution to ensure that Americans would not be tyrannized by government; these rights are available to all American citizens regardless of their financial status. Poor and wealthy Americans may exercise their rights to vote, freedom of speech, freedom of religion, freedom from double jeopardy, and freedom from unwarranted search and seizure. Moreover, there are many organizations to help the indigent enforce their rights to these freedoms.<sup>70</sup> There is no justification for treating inventors' "exclusive right[s] to their respective . . . discoveries"<sup>71</sup> differently. There is no hierarchy of rights in the Constitution; all rights are primary.

Unfortunately, in practice, patent rights are treated as secondary not only because they are not free to every American with an otherwise patentable invention but also because those who cannot pay the fees are prohibited from obtaining them. This situation is analogous to one in which people incapable of paying a voting fee are denied the right to cast their ballot. Poll taxes were abolished so all American citizens would have an equal opportunity to vote. Congress today would not impose a fee in such a way that every American citizen did not have an equal opportunity to vote. Because the Constitution has no hierarchy of rights, the U.S. Patent System, at the very least, should provide some alternative for inventors with limited financial means and patentable inventions to acquire patent rights.

Assume for a moment that Congress, via the patent system, is carrying out its Constitutional mandate to award inventors "the exclusive right to their respective. . . discoveries."<sup>72</sup> Based on this Constitutional language, by not awarding patents to inventors with limited financial means, Congress is implicitly making one of two statements: those who invent and cannot afford to pay the fees are not inventors, or the inventions of those who cannot pay the fees are not discoveries and therefore not patentable. The result of these two statements is the same: regardless of the importance of their inventions, those who cannot pay the fees cannot obtain patent rights.

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Constitution [Art. I, § 8 cl. 8]. They do not promote the progress of science, they stultify it." *Id.* at 174-75.

70. Some examples of these organizations are the American Civil Liberties Union, the Minnesota Civil Liberties Union, and the Center for Religious Freedom.

71. U.S. CONST. art. I, § 8, cl. 8.

72. *Id.*

There are several requirements for an invention to be "patentable."<sup>73</sup> If fee payment is considered one of these requirements, then theoretically the patent system's discrimination is eliminated because everyone with "patentable" inventions has an equal opportunity to acquire patent rights. However, this definition of "patentable" invention is still functionally contrary to the purpose of the U.S. Patent System<sup>74</sup> because those who cannot pay the Office fees are discouraged from publicly disclosing their inventions. Regardless of how "patentable" invention is defined, in the present U.S. Patent System those who cannot pay the fees are discouraged from publicly disclosing because they know their financial status automatically deems their discoveries "unpatentable."

*Part V: Minimizing This Discrimination and in the  
Process Furthering the U.S. Patent System's  
Constitutionally Given Purpose*

Decreasing the patent application preparation and Office fees for inventors with limited financial means will minimize this economic discrimination and further the patent system's purpose. The patent application preparation fees could be reduced by establishing some pro bono or sliding-fee-scale programs for inventors. In addition, the Office fees could be reduced by eliminating and/or reducing Office costs, establishing sliding scale fees for inventors with limited financial means, and establishing a monthly payment plan through which inventors could pay the Office fees.

In order to encourage the development of pro bono programs among patent attorneys and agents, the Office should require registered attorneys and agents to donate a designated number of hours<sup>75</sup> per year to performing pro bono work. The Office could make continued attorney and agent registration contingent upon the donation of these hours. All registered active status attorneys and agents would be required to donate pro bono hours and to mail to the Registration Branch of the Office a verification that they performed their required hours for that year. If attorneys and agents do not perform the pro bono work, they would lose their active registration status unless they provided an unavoidable reason for their lack of performance. The activities that would satisfy the pro bono requirement would be patent application preparation, patent-

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73. See *supra* notes 27 and 28, and accompanying text.

74. See *supra* notes 9-14 and accompanying text.

75. Ten to twenty hours per year seems a sufficient number of hours to donate without intruding upon too much of the patent attorneys' and agents' time. In order to practice Patent Law, attorneys and agents must be registered with the Office. The attorney's registration status must also be active.

ability consultations with inventors, patent searching, licensing or non-disclosure agreement preparation, and any other patent work that the Registration Branch of the Office approves.

Patent attorneys or agents who could not perform their pro bono work because there were no inventors with limited financial means in their area would have an unavoidable reason for non-performance for one year. When these attorneys and agents mail their form to the Office with their reason for non-performance, their name would be given to inventors in their area who inquire at the Office about getting a patent application written. Then, after the first year, these attorneys and agents should have no trouble finding and performing pro bono work.

Patent lawyer and agent associations should take the lead in establishing pro bono and sliding-fee-scale programs for inventors with limited financial means. Bar associations and legal aid organizations should include patent law in their pro bono and sliding-fee-scale programs. There are pro bono and sliding-scale legal programs and organizations that offer assistance in most other fields of law to clients with financially limited means.<sup>76</sup> No reason exists why inventors should not have these same types of resources.<sup>77</sup>

Decreasing the Office fees for everyone, especially for inventors with limited financial means, would also encourage public disclosure of inventions.<sup>78</sup> John Reilly, a patent attorney, outlined some suggestions in a 1983 speech to a joint meeting of the New York Patent Law and Connecticut Patent Law Associations for decreasing the Office costs.<sup>79</sup> Reilly suggests eliminating *inter partes* disputes from the Office's jurisdiction.<sup>80</sup> These disputes include all interferences, oppositions, and contested reissues.<sup>81</sup> Reilly advo-

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76. Some examples of these organizations are the American Civil Liberties Union, the Center for Religious Freedom, Legal Aid Society, and the Legal Assistance Bureau.

77. The amount of money required to establish a pro bono or sliding fee scale Patent Law program depends upon several factors. These factors include the size of the geographical area to be served, the organization's desired subsidy percentage, the amount of money raised, the extent of the services the organization wants to provide, and the availability of attorneys who will work at a reduced rate.

78. Reilly, *supra* note 39, at 171-75.

79. *Id.* at 166, 175.

80. *Id.* at 175.

81. Interference proceedings are initiated when one party or the Office discovers that at least two inventors are claiming original inventorship of the same items, processes, or compositions. The Office then conducts a hearing similar to a trial to determine which party is the first inventor. A reissue occurs when parties have their patents reexamined to assure, in light of newly found references, that their patents remain valid. Sometimes other parties oppose or contest these reissues, and then the Office holds a hearing. BLACK'S LAW DICTIONARY 562 and 778 (abr. 6th ed. 1991).



cates requiring the courts to handle these disputes so the Office can decrease its costs and concentrate on examining patent applications.<sup>82</sup> He argues that the federal courts should handle these disputes because they try at most 350 cases per year "involving the interests of only several parties," and the Office benefits the whole country.<sup>83</sup> The courts would not be overloaded with interferences, oppositions, and contested reissues because the parties would initiate these proceedings in their respective federal districts. Not all of these proceedings would be initiated in the District of Columbia where the Office resides.

Reilly also suggests eliminating disciplinary proceedings from the Office. These proceedings should fall under the auspices of the bar associations.<sup>84</sup> "It is the duty of the bar associations to discipline attorneys. As to patent agents, who are not members of the bar, let the Patent Office handle only that."<sup>85</sup> Finally, if the Office continues to settle *inter partes* disputes, then Reilly advocates charging those using the Office for these purposes 100% of the actual cost of these services. Therefore, other inventors, not related to the disputes, will not have to bear the expense of these dispute resolutions.<sup>86</sup>

In general, Reilly emphasizes that all participants in and beneficiaries of the patent system should bear the Office's expenses—not just the inventors.<sup>87</sup> The American public benefits from the Office and the patent system, so it should bear much of the cost. Reilly suggests: taxing patent attorneys \$1000 per person per year;<sup>88</sup> requiring the Office to sell copies of copyrighted patents on an ongoing basis to increase the Office's revenue;<sup>89</sup> and, taxing every assignment, license, and agreement concerning patents and requiring all of these documents to be registered.<sup>90</sup> Although

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82. Reilly, *supra* note 39 at 175.

83. *Id.*

84. *Id.*

85. *Id.*

86. *Id.* These *inter partes* dispute fees should be treated as other Office fees. If inventors with limited financial means cannot afford the fees, then they should pay only what they can afford. Those that can afford the fees should pay enough so the Office recovers 100% of its costs for settling these disputes.

87. *Id.*

88. *Id.*

89. *Id.* Presently, the Office only sells copies of patents within a limited time after issuance. In addition, these patents are not copyrighted so everyone may copy them.

90. *Id.*

Reilly's ideas are insightful, they do not provide assistance to those who cannot afford to pay any Office fees.<sup>91</sup>

An idea that has not been thoroughly considered is increasing the flexibility of Office fee payment. The Office should develop a sliding-fee-scale so that small entities will pay only what they can afford to pay. Assuring that everyone has an equal opportunity to obtain patent rights would fully encourage public disclosure of inventions. Increasing the flexibility of fee payment would provide equal opportunity for everyone to obtain patent rights.<sup>92</sup> Increasing the flexibility of fee payment requires providing sliding-scale rates and an opportunity to pay fees via a periodic payment plan.

A periodic payment plan could, in cooperation with a sliding-fee-scale, work well in the Office's examining system. Small entities could have 18 months to pay their patent application filing and disposition fees, which would be pro-rated by the Office in accordance with ability to pay.<sup>93</sup> After 18 months, small entities would begin making monthly payments toward their utility patent maintenance fees if the patent is allowed. If the patent is not allowed, their financial obligations will have ended.

Usually small entities are better able to make a monthly payment rather than a lump sum payment. If the monthly payments, as determined by the inventor's ability to pay, are not made, then the patent application would be abandoned or the patent would expire. If the Office bases its sliding fee scale on the ability to make monthly payments rather than the ability to make lump sum payments, then it may collect more fees.

However, those who could not make any payments should not be required to do so to obtain a patent.<sup>94</sup> Because inventors under this system might be paying Office fees each month for about 13 years, the financial status of those small entities not paying the full small entity rate periodically could be reviewed, and payment could be adjusted accordingly. In addition, misrepresentation of financial

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91. Reilly does question why no one has suggested adding a third tier to the Office fee structure for those who cannot afford to pay any fees. *Id.* at 171-72. However, he does not advocate the addition of this third tier.

92. Commentators and the Court of Appeals of the Federal Circuit have suggested the timing of Office fee payments should be more flexible. See Thomas J. Kowalski, *The Maintenance Fee System and Policy of the Patent and Trademark Office: Arbitrary, Irresponsible, and In Need of Reform*, 30 IDEA 95 (1989); In re Dubost, 231 U.S.P.Q. 887 (1986). At least one commentator has suggested an increase in the flexibility of the amount of fees paid. See Reilly, *supra* note 39, at 171-72.

93. Eighteen months is a typical length of time for patent prosecution.

94. Waiving Office fees would not be a new idea for the Office. The first Commissioner of Patents sometimes waived fees. William I. Wyman, *The First Chief of the Patent Office*, 1 J. PAT. OFF. SOC'Y. 152, 152-53 (1918).

status should result in immediate patent application abandonment or patent expiration.<sup>95</sup>

## Conclusion

Congress' reorganization of the Office's fee structure to include a 50% discount for small entities was an initial step in eliminating the patent system's discrimination against inventors with limited financial means. However, this initial step is not enough given that its positive effects were negated by the 1990 Omnibus Reconciliation Budget Act's 69% surcharge on patent application processing and patent maintenance fees.

By requiring inventors to pay to obtain patent rights this is what we accomplish: we stultify the number of disclosures, we stultify the progress of science, we promote the use of trade secrets, and we force inventors to buy the right the Constitution says they are entitled to have, and then [with maintenance fee payment] we force them to continue to pay to keep the right alive. . . . These . . . fees controvert the purpose of this clause [U.S. Const. Art I, § 8, Cl. 8] of the Constitution. They [fees] do not promote the progress of science, they stultify it.<sup>96</sup>

Because payment of these fees is required to obtain patent rights, the patent system discriminates against inventors with limited financial means. Inventors who have useful, nonobvious, and new inventions, still cannot obtain Constitutionally-based patent rights; whereas, inventors who can pay the fees will obtain these rights. Inventors in most instances must pay utility patent application preparation, and Office processing and maintenance fees. In order to assist inventors with limited financial means, legal organizations should establish pro bono and sliding-fee-scale programs for these inventors. The Office should require all registered agents and attorneys to donate a designated number of pro bono hours in order to maintain their active registered status, and the Office should implement sliding scale rates and monthly payment plans for small entities. With these changes, current economic discrimination in the U.S. patent system could be minimized.

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95. Inventors with limited financial means could be required to mail a copy of their tax returns to the Office annually to verify their financial status.

96. Reilly, *supra* note 39 at 174-75.

