

Testimony of

William Parker

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"Perspectives on Patents"

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Mr. Chairman, Ranking Member Leahy, and members of the Subcommittee, my name is Bill Parker and I am the Chief Executive Officer and Director of Research for Diffraction LTD, a technology and intellectual property based small business. Thank you for inviting me to testify today on the very important topic of patent reform.

In my testimony I hope to present some of the views of individual inventors and other small entities on needed changes to the United States patent system. As evidenced by the substantial numbers of innovations and patents that spring from small businesses around this country, and the jobs these innovations create or maintain, even our rural Vermont operation has a role to play in the United States economy and its highly valued high technologies.

My company, Diffraction LTD is not just small, it is a micro-business. This panel's members are by and large from large entities, so I will try to make this presentation as focused as possible on a few issues of patent reform as they affect individuals and small businesses. My apologies in advance if this testimony takes on a personal perspective, but perhaps this approach will help us to remember that it is (still) people that do the inventing.

Introduction

Like many small technology based businesses, our company was founded by an inventor and patent holder, in our case it was my wife Julie. After earning a graduate degree from MIT, and with little or no business background, she decided to start her own company to further develop and capitalize on her skills, talents, inventions and discoveries. She found it was useful to have a partner in business with some experience finding funding and navigating the complexity of intellectual property protection - that's where I came in. As an inventor from childhood, with some reasonable commercial success, I had collected a considerable range of experiences learning about the things one did, and did not do, to capitalize on one's creativity. We started with nothing but a few good ideas.

In the last 15 years our company, now employing over a dozen innovators and a similarly sized professional support staff, has produced a number of commercially viable developments in holography, optics, microelectronics and nanotechnology. Some of these discoveries and intellectual developments have been issued United States "letters patent", still others are in the patenting process. We have recently launched an effort to develop innovations that may help win the war against terrorism, work supported with federal government contracts as well as our own private funds. Some of our homeland defense ideas are now in the patent process and will hopefully gain protection as well.

It is important to note that we believe our intellectual property in the long term will have a greater value than our tangible output will in the short term. Said a different way: the product of our minds probably has more value than the things we can make with our hands. This is a theme you will be hearing frequently in representations that there is a need for better patent quality. If intellectual property is not protected with high quality patents, then its value diminishes or goes away.

When we have done our inventing job well, and the result is a product in demand, we may need to depend on others to take our innovation to the market. Like other inventors that choose the licensing route over manufacturing, we then ask for a royalty payment as a return on our investment in the innovation. A royalty bearing license or other payment method is used to transfer the right an inventor has to monopolize their invention on to another party.

Ranging from a few percent and up, a royalty payment is made during the life of the patent and sometimes longer, with terms and conditions negotiated between the inventor (licensor) and the manufacturer (licensee). The licensee using or selling our patented invention wins because he has gained a protected product or process without the expensive R&D it took to create it. Society wins because independent innovators can think of new products, processes or methods unfettered by limits part and parcel with the corporate decision process or the demands of quarterly profits reporting. As more large companies outsource innovation to companies expressly built around the speedy generation of new processes and products, consistent protection is to everyone's benefit.

That the United States is moving toward an economy where intellectual property (IP) is a significant element of the GDP is undeniable. That we are doing everything we can as a country to protect our IP is questionable. The future world market will need new rules regarding the ownership of ideas, rules that are fair and balanced. I would like to offer an image to the committee of a day when all the US has to offer the world is IP, a few raw materials and some farm produce. This is a scary scenario if we are not prepared or able to protect our most important assets.

As it has since its inception in all other areas, the United States needs to take the ethical and legal high ground with robust, creative and independent approaches required for a fair and equitable marketplace for ideas. I believe that patent reform efforts now in discussion can produce the necessary changes in a relevant time period.

I would like to direct my remaining remarks toward recognizing a few of the critical elements for the success of small technology based businesses that would be affected by patent reform currently under discussion.

Quality of Patents

The patent process must be flawless for a patent to be above question. And it must be above question to have any real value. Thorough examination is all that is required, but as the art becomes more involved and specialized it is increasingly more difficult to factor out mistakes of omission. Better access to prior art is part of the solution, but more is needed in the examination process to prevent a poor outcome despite a significant amount of time and money being spent.

When an examination for a foreign filing uncovers prior art that neither I nor the USPTO examiner had seen before, it leads to a very uncomfortable feeling of "what else didn't we know about". I have personally seen improvements in this area in the last few years, hopefully due to better resources being applied to the problem. Resources that need still more improvements, i.e. more money, as well as some "outside the box thinking" on the problem.

Money not spent by the PTO to ensure quality is often spent instead by the patent holders and their challengers in legal actions - when it's too late for anyone to gracefully back down. Tremendous amounts of money are spent in challenges when a fraction of that could have often prevented the problem at its source. This leads to the appreciation that for many inventors a patent is seen as nothing more than a "license to litigate." We need to do everything we can to dispel that appreciation.

If it is true that other countries tend to have better prior art examinations than in the US, then perhaps we can determine why. This may be an effect of timing, as our examination may be concluded prior to the commencement of a foreign one, but it may also be that they know how to do better examinations. This should be investigated and if we can learn some new tricks, then let's do it.

There is a need for skilled examiners in emerging technology areas - keep in mind that experts in their specific art are their customers. From biotechnology to nanotechnology, in software and microelectronics as well as other cutting edge fields, the experts are the ones making the inventions - not the ones determining if they are in fact inventions. It is not easy for an examiner to know enough about an emerging field of science, and in particular a specialty area of scientific or technical endeavor, to see the full breadth of a filing's impact or the value of a particular claim.

Regardless of what it takes, in manpower or money, the patent examination process needs to be up to the task. Entrepreneurs depend on a filed patent to interest investors, and if the invention succeeds to the point of a patent but is in fact easily challenged, both sides have wasted time and money that could have been better spent. Patent filings are routinely used by entrepreneurs to protect themselves from confidants that might just as easily become competitors as customers. Everyone benefits if the product of an examination is beyond question.

A post grant review process undoubtedly could improve the quality of the patents issued. Despite the fact that it is a good idea, how does the owner best deal with the wait time in a commercial sense. A patent in limbo for a year is a scary thing from a commercial perspective, but far better than a patent in limbo for its entire life. It would be great to have a system that erased the worry - will the patent that you are building your business on ever be a sure thing?

First to Invent vs. First to File

You will hear much about why we should move to a First to file approach. It sounds like a good approach in many ways for individual inventors, and for the system in general, but in fact it poses a few big problems for small entities.

Due to the high cost of building prototypes or laboratory work, it takes a small inventor longer to go from idea to reduction to practice, and without a sufficient test of reality a patent filing is more difficult to put through the PTO and more suspect when it is. A one year "grace" period following a provisional patent filing is the best protection afforded a small entity - unless it takes over a year to assemble the required funding and then verify the invention, as it often does.

Perhaps there are ways to optimize the first to file approach that levels the playing field with bigger entities. Different rules are already in play for filing costs, why not extend those benefits in other ways as well. A number of efforts are in place to help small entities short circuit this issue of costs to reduce ideas to practice, such as the Small Business Innovative Research (SBIR) program, but even then only a small fraction of innovative ideas obtains support toward a reduction to practice.

International Protection for Small Entities

We should always be looking for additional ways to encourage the creativity and capabilities of the country's small inventor entities, reduce their costs in obtaining patents, and give them enough extra protection in the world market to keep them, and us, competitive. When our best ideas are being copied wholesale overseas it does nothing to reinforce the inventor's or the public's belief in and support of the patent system.

An issue I hear frequently from independent inventors is how they can do nothing to stop overseas copying of their inventions. When I ask them how they know they are being infringed, they tell me they see their inventions in big chain stores here in the US. What may be needed is both a better understanding of the rights of an inventor to compel a seller of their invention to cease and a less expensive and more responsive means in the courts to enforce this right.

Need for Injunctive Relief

Not all inventors are opportunists or patent predators. A lot of talk is aimed at protecting big businesses from the actions of a few opportunists that would try to use the system in ways it was not meant to be used. If a court reads a situation such that in its estimation harm is coming to the patent holder by way of an infringement, then injunctive relief should be available to the plaintiff. Some would say that the use of a permanent injunction is excessive, particularly if the patentee does not intend to manufacture the invention themselves. In some ways this is exactly counter to the purpose of a patent as a means to bring new products or processes into commerce.

There is, however, a need to recognize and protect the value independent inventors and other small entities bring to the commercialization "party". But how best to accomplish this, when there is such a large range of ways patents can

be used - and misused? A patentee's ability to operate in the commercial sense is in part determined by how well they are able to control their intellectual property - with whom they do a deal and under what terms. If their invention has been infringed, willfully or otherwise, and the infringer is not compelled to cease, then not only has the inventor's rights been abridged, but so has their earning power. Another deal, with another manufacturer at a higher royalty rate and with a larger commercial value could have been the outcome of a clean, preferably exclusive, licensing relationship. Because an infringer is willing to pay a royalty, it is not an indication that they are willing to respect the rights of the patentee in the broader sense. In these cases commerce in general suffers, and the full potential of the patent is in question.

Conclusion

I speak for many of my small entity colleagues when I thank the Committee for this opportunity to be at the table during this hearing. We only ask for more chances to provide views to Congress on this important topic and for more presence on advisory boards during the patent reform debate.

I personally thank you for the opportunity to appear before you today, Mr. Chairman, and I offer my continuing efforts to find, or invent, ways to make our patent system work for the 21st century and beyond.