

America's *Different* Patent System:
The Reason The U.S. Outperforms The
World

A Report To The 107th Congress

(Initiated In Response To A Request From Patent Office Director James Rogan)

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Chapter One

Introductory Remarks For Assistant Secretary Of Commerce And Patent Office Director Judge James Rogan And Others More Generally

Your request recently, while Joanne and I were visiting your Patent Office Director's office in Arlington, that I expedite my plans to reduce to writing my life-long-honed views on the status of our patent granting capabilities and those of the rest of the world, has fallen on most receptive ears. And your comment that you really need them promptly to help formulate your desired thrust into study of the arena of patent law and patent office modernization and reform truly befitting today's widely varied technologies and their respective explosions and needs, sparked my enthusiasm to help immediately! As Joanne put it, "Our trip to Japan gives 14 uninterrupted hours to get started!" (That's the way she gets her Inventors' Digest magazine out on time!)

As I started to explain to you, my critique and ideas are certainly not to put more "Band-Aids" on our own current law and procedures though Joanne and I had something to do with keeping out of the American Inventors Protection Act of '99, patches that would indeed have been quite septic to small inventors and entrepreneurs.

Nor am I the slightest bit interested in using the model of an out-dated, infirmly and inferiorly working European, Japanese and general world scenario in which foreign countries are presently stymied, faring far more poorly than we in issuing prompt patents, and caught on their own pitard of "absolute novelty" (i.e. too late to patent if it is published or shown on the market or at a trade show). They, indeed, have been struggling for at least over four years as to how to adopt something from us that they

know they badly need and think (erroneously) is akin to our one-year period of public trial and use before filing--their so-called "grace period" proposal that has yet to see the light of day. Such may permit late filing, but unlike our later-described interference protection during our one-year marketing trial provision, and unlike our requirement for an oath as to original invention on penalty of invalidity, their so-called "grace" proposal lacks any protection whatsoever from stealth, claim-jump filing by others, and other abuses.

When you said to us that you were starting afresh with no loyalties or obligations owed or committed to anyone, I was encouraged that maybe we can give you a perspective that I doubt that you can get anywhere else-- because just as you owe no one anything, neither do we.

My personal understanding and insights, moreover, have come from a very rare, varied and long entrepreneurial background from one who has been (and still is) privileged to operate in multi-faceted interdisciplinary professional activities. I lay these out not to boast, but to give you assurance that I've really seen and done what I'm talking about.

- Patent lawyer practitioner for over 55 years prosecuting U.S. and foreign patent applications (Europe, Mexico, South America, Canada, Middle East, Scandinavia, Africa, India, Far East, Russia), and in diverse fields including electrical, electronics, mechanics, robotics, computers, software, chemistry, electro-chemistry, biology and microbiology, drugs, acoustics, etc.;
- Court master in patent and trade secret litigation, mediator, and trial expert;

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- Patent licensing, technology transfer and joint venturing and new company launching world-wide;
- Lead trial counsel for many years in patent litigation in many circuits in the United States and before the U.S. Supreme Court and in the Court of Claims, U.S. counsel in litigation in several foreign countries, including Canada, the United Kingdom, France, Germany, Italy and Japan, among others;
- Academic experience as lecturer and professor of patent law, and in several institutions including Harvard, Franklin Pierce Law Center, and MIT (where I've been on the lecturing faculty for almost 40 years and to the present) and special lecturer at foreign institutions in Europe and the Far East;
- Governmental experience as patent examiner in the USPTO, and later as a charter member (the only Republican) under Presidents Kennedy and Johnson of the Commerce Technical Advisory Board advising Congress on technology;
- Member of the National Inventors Council;
- Physicist (MIT) and inventor with over 90 U.S. patents in fields ranging from electronics, (including internet software techniques) to fish farming and biologicals and plant nutrients;
- Inductee in the National Inventors Hall of Fame for imaging radar and ultrasound imaging;
- Inductee in the U.S. Army Signal Corps Wall of Fame, and earlier World War II radar officer in European and Pacific theaters of operation, and U.S.

Signal Corps director of radar beacon research at Anacostia, and liaison officer with the Navy's Bureau of Ships;

- Founder of the Franklin Pierce Law Center, Dean, Professor, President and Chairman;
- Founder of the Academy of Applied Science with its youth science and invention-stimulating programs nationwide, and at 50 universities each year, some in collaboration with the U.S. Army, Navy and Air Force Research Offices, and Academy affiliation with the United Inventors Association of the United States;
- Entrepreneur including launching several companies on my own patents (Megapulse Inc.--Loran-C navigation, Klein Associates--side scan sonar, New England Fish Farming Enterprises, Inc.--salmon farming); and initial patent counsel for many start-up companies based on patents, including Fortune 200 EG&G and BBN, among others.

This résumé, as earlier stated, is not provided to boast or to impress--but only to give you the assurance, when you want to compare my perspective with others, that I do know what I'm talking about and from a diverse substantial first-hand life-long actual experience.

Even in my small law practice in Concord, New Hampshire, and Boston, I still prosecute a substantial number of patent applications all over the world, and can readily make available to you and your staff, first-hand real comparative statistical information (with your viewing of files with our clients' permission) on all the facets of foreign

prosecution under their laws and procedures, and as compared to the prosecution of the corresponding U.S. applications on the very same inventions.

This current experience I have continually supplemented by research projects of my MIT graduate students each year, so that I am totally confident that what I say here involves provable facts, or opinions based thereon. They will never embarrass you, the Patent Office, the Congress--or me.

In your formulating of your own views, you will undoubtedly hear from foreign and some of our own bureaucrats and U.S. large corporation and lobbying lawyers, and sometimes technical associations that generally received one-sided information only from these parties. While there is substance to some of their views, this is usually offered in the interest of their clients to whom, invariably, I have consistently found they tell only part of the story. I believe this is in part because they have a continual fear of the bothersome and often far more prodigious and path-breaking inventions of America's independent inventors, university inventors and start-up and other small-business entrepreneurial firms. "What's good for General Motors," however, is often bad for this constituency of our inventors, as I will later demonstrate for you--and this constituency, at least in its relative size and historical and current importance to American innovation, is largely, or even totally, absent in the rest of the world operating under very different patent procedures and laws.

While the large international companies (I no longer consider them truly "American" companies) differ in their lobbying objectives from the small inventive business and university constituencies, since they already are forced to live under the European and Japanese systems--I do not believe you'll find anyone amongst them who

would challenge either my integrity or my total facts--they just don't want to hear, having pre-determined their objectives.

Does that sound familiar to you?

I admired your record for seeking the truth and for your appreciation of the vital importance of the sanctity of representations under oath, and the importance, for our system to work, of consequences for violation of oath, and your record of willingness for personal sacrifice in what you believed to be in the best interests of our country.

I'm sure you also don't want a patent system for our country that would violate these principles.

It is now in order, therefore, to examine the "facts" about our present system in contradistinction to that of the rest of the world.

Chapter Two

Historical Perspective

America came to its philosophy of a patent system from a very different perspective than European countries and, indeed, different also from the rationale of the rest of the world.

Fully aware of the successful British experience with encouraging the importation of new technologies and products by the offering of a limited grant from the crown of the exclusive opportunity to promote in the realm, with ultimate check upon the power of the crown to extend such exclusivity for other than a limited time, and then only for a product or craft previously not present in or known to the realm, the Constitutional framers none-the-less chose to reject aspects of the English philosophy behind the grant of a patent for such importation. That philosophy was and still is predicated on the proposition that the crown should not have to make any such exclusive grants if the technology or product is already known or present in the realm.

It has nothing whatsoever to do with the actual creator or discoverer of an invention or a new idea and is, and always has been, blind to and totally unconcerned with the actual creator, let alone any equities residing in the individual creator. It is only the desire to get new commercial ideas into the country that underlay and still underlies the British and now European and world patent systems, releasing the governments from any requirement to grant a patent if the idea was already present in the country.

This continues to this very day in the British (European) and world-wide doctrine of "absolute novelty" that bars a patent if there has been even a single instance of public information, presence or disclosure of the idea before an application for patent has been filed--even activity by the creator of the idea. This doctrine underlies the "first-to-file" philosophy of the world patent systems, which the United States deliberately rejected in the launching of our patent system, and still rejects. The rest of the world, since the American union, has used the first-to-file concept and it has consistently produced results in every category one chooses to measure--invention, entrepreneurship, jobs, commerce, etc.--inferior to what the American patent system, based on our distinctively different philosophy, has historically produced and presently continues to produce with an ever-widening gap from all the rest of the world put together!

The Colonial forefathers saw a real human face in a discovery or invention--the real, live human being behind the creator. While certainly desiring to have the incentive for importation of new ideas, they wished strongly to encourage also the making of discoveries and the spawning of new commercially useful ideas and technologies (then termed the "useful arts") from within the country as well. Nor were the forefathers concerned with just floating ideas *per se*. To the contrary, they sought to spark actual innovation and actual entrepreneurship--not at all the mere filing of a piece of paper to block others. The Federalist Papers clearly demonstrate to me, indeed, that the drafters were really concerned with innovation--the starting of new industries, jobs and exports--not the mere institutional publication of a brainstorm such as a Michelangelo painting of a dream.

From our very Constitutional beginnings, indeed, unlike the rest of the world, that amazing group of Constitutional drafters had humanized the creative and inventive processes, recognizing that it was actually *individuals* who made creations, and that they should be encouraged to turn these into useful, commercial business, though at their own risk and finances; and that, for its part, the role of government was to provide an instrument to secure them from copied competition for a limited period of time.

There were, indeed, among the framers some who themselves had been creators and builders of useful new devices of their own, and they could relate to the realities and problems of commercialization and the need for a legal system that recognized the real-world circumstances of invention, business formation, manufacture and marketing.

In this recognition, unlike the British bureaucratic philosophy, the Constitutional provision for patents and the laws enacted by even the very first Congress in pursuance thereof, historically reflected numerous novel laws specifically tailored to the real-world needs of the invention, development and marketing world, and that find absolutely no counterpart either in the British system of our Colonial period or in the basically same type of system currently used in the rest of the world.

Among these, which I shall elaborate upon a bit later, are our concept that the inventor -- instead of being forced to live in the world of claim-jumping -- should be encouraged to perfect the invention before filing an application in the Patent Office. This also protected the Patent Office from having to treat with only partially-baked ideas and having to deal with the problems of numerous subsequent changes and multiple patent applications therefor as the commercial product was developed.

How to perfect -- how to refine to what customers really need and want? Only one real-world way. Try it out in the marketplace! At least get opinions and experience with prototypes in the real world that allow for the invariably required practical changes for working properly and/or meeting the potential customers' real needs.

Hence, we created a law that provides for up to a year (it used to be two years) of public use, test marketing, even initial sales, before you are required to file the U.S. patent application. Our philosophy, quite contrary to the rest of the world even as it was in our Colonial times and still is, was to encourage the completing of a practical, commercially useful and marketable product which is to be fully described in the patent application, instead of a hurried half-baked approach forced by the requirement to rush to get something on file before you are claim-jumped by another.

Our legal system is the only one ever designed with the sophistication to match the real-world needs of invention and technological engineering and development and market-testing procedures with supporting legal provisions that recognize these real-world development requirements and are tailored therefor – a recognition found nowhere else in the rest of the claim-jumping world.

But this is only half the cake.

Our American legal wisdom has recognized and still recognizes that having a year of public testing is of little value (like the current proposals in Europe to copy our so-called "grace period" by which they mean something very different from our concept) unless the inventor has protection from stealing, copying and even claim-jumping into the Patent Office by those who are stimulated by seeing the publicly exposed invention in this test marketing period. Without the opportunity of the inventor to prove when he or

she actually made the invention (as distinguished from when the perfected U.S. patent application is filed), the danger and risk of public disclosure and testing is intolerable.

Still again, our law--as distinguished from that of any other land--provides the concept of protection by providing for *interference* proceedings that can afford the opportunity for the real inventor and innovator to make use of the one-year public use, testing and perfecting provision without interference by the stealth or claim jumping of another.

Without this feature, the currently proposed "grace period" idea of Europe, which they still can't find a way to incorporate into their kind of system, while it may permit late filing in Europe, can only leave open the opportunity for stealing and intolerable risk to the inventor, since the first-to-file gets the patent willy, nilly under their system.

And our law, again in trying to match to the real-world needs of technological development, has provided still a further unique feature unknown elsewhere, sophisticatedly recognizing that there are some circumstances where the only way an invention can be tested is by using and testing it sufficiently long in public -- and so we have an exception to the "one year" public use rule for the case of truly experimental use in public (not commercial) to determine the commercial utility of an invention of the type requiring longer-term public testing for proof of such utility.

All of this developed, moreover, from our Constitutional provision (Article I, Section 8) that uses language reflecting our distinctive American philosophy that continues widely to outperform the world.

First, our patent laws are not at all concerned with the very primary concern of foreign patent laws - -namely, absolving the state from having to grant patents in an invention that entered the state even trivially, before the application is filed.

Our Constitution rather instructs Congress, to the contrary, to *promote* the progress of the useful arts. It then tells Congress how to do this; by *securing to inventors* for limited times the *exclusive rights to their discoveries*.

The only other place in the Constitution that, at this writing, I can recall where individual "rights" are even mentioned, is in the Bill of Rights; and I do not recollect where any specific profession has been singled out in the Constitution as entitled to special "rights" additional to those of all citizens under the Bill of Rights - -namely, under Article I, Section 8, "inventors" and "authors".

The provisions mandate Congress to *secure* these *rights to inventors* and in an exclusive form for a limited time.

It is quite evident to me, at least, that there is no way Congress is authorized to give exclusive rights to anyone who cannot be classified as the *inventor*,-- a word that has been clearly used from at least the time of the Federalist Papers, and through over 200 years of court and administrative agency decisions, and in the legal practice, social and commercial life, and with language understanding, that unambiguously means the actual original creator of the discovery -- and no one else. If someone is not the original creator, but only the first to file a piece of paper with a description, this cannot, in my view, meet the clear language and intent of the Constitutional provision.

This is the more so, because the Constitution itself specifically defines the "inventor" as the one who actually made the "discoveries." Clearly to flout this further

distinctive qualification by trying to equate this requirement for a discovery with the mere filing of a piece of paper, is also ridiculous.

In short, even if Congress and lawyers can play games that "black" is "white" in other contexts, they still cannot, in my view, Constitutionally or historically twist the words "inventors" and "discoveries" to mean other than what over 200 years of American usage and precedent have said they mean -- and that most American kindergarten children could tell you they mean.

Even if, accordingly, the great roseate of the world would be that America join the inferior patent systems of the world by scrapping "inventor" and "discovery," we would still need radically to amend Article I Section 8 to accomplish such a result.

Once done, moreover, we would be stripping away from the most advanced legal system in the world, its far-sighted, sensitive and superior insights in providing legal mechanisms that are truly tailored to the real-world needs and customs of technological development and innovation and that have produced results that outstrip the rest of the world - - and all for the convenience of bureaucrats whose limit of desired exertion seems to reside in keeping track of the date and time stamps at the world's Patent Offices --, and also for the "benefit" of large multi-nationals who presently are forced to live under the inferior foreign patent systems of the rest of the world, and seem determined that all others should have to share in their "harmonizing" misery, too.

Chapter 3

How Inventions Are Made, Developed And Protected By Patent Application Filing In The United States

The process of real-world invention, and the developing and protecting of inventions in the United States is, in great part, quite uniquely different from the rest of the world. Our Congress and Courts have accordingly long recognized the need correspondingly to provide a legal system with special rules, doctrines and customs -- indeed totally foreign to foreigners -- especially created to match the actual real-world needs of the American culture of invention and the development and entrepreneuring of the same, which has been so startlingly successful, and light years beyond the results produced under foreign laws.

The Elements of "Invention"

Whether stimulated by purposeful design to make something better, or a dream or a hunch, or a serendipitous or accidental discovery with astute recognition of its potential, or otherwise, the making of an invention basically initially always first requires a total *conception* of the product idea, formulation or process-to-be.

Under American culture and Constitutional intent, however, we have never considered a mere *conceiver* to be an *inventor*; and certainly not that mere conception, has actually progressed "the useful arts" for the actual benefit of society.

To the distinct contrary, we have always required the mere idea person or *conceiver* to proceed much further to the stage of developing proof of principal or *actual reduction to practice*¹ of the discovery in order to rise to the level of an "*inventor*".

The United States Patent Office, indeed, used to require at least the development of working models before qualifying a patent applicant as a potential *inventor*; and even today, our patent examiners often still require evidence of workability or actual results, and under *oath* and sometimes with corroboration.

And this is exactly in tune with the real world of invention. Desks full of sketches and conceptions that do not find their way into working products or processes for the marketplace, provide no benefit to the public, no commercial reward for the conceiver, nor any recognition by *our* legal system, and such certainly do nothing tangible to fulfill our Constitutional purpose of progressing "the useful arts". They may be quite suited, however, for a first-to-filer.

Thus, in the real world, an *inventor* proceeds after conception to the development of early models and prototypes -- to the actual building and testing and modifying and re-testing that is, in practice, required to arrive at a potentially useful and workable product or process.

1. I am here ignoring the fact the we unfortunately do also permit mere "paper patents"; equating since at least the *Bell Telephone Cases*, the theoretical portraying of an idea in a patent application as the legal "equivalent" of an *actual* reduction to practice - - a lawyers' I think, lousy "invention" of the purely legalistic concept of so-called "*constructive* reduction to practice" by filing a patent application. I know, however, of no new companies or jobs that such legal machinations have produced, and fortunately the Courts give them very limited scope and importance in practice.

It is to the rewarding of the completion of this special latter effort -- not stopping at mere conception -- that the American patent laws were specifically designed to encourage. It is the making of real contributions to the progress of useful arts and the encouraging of risk-taking in the launching of new technologies, businesses, jobs and exports, that have been defining and still increasingly define America's vastly superior performance over the rest of the world.

Not only does the real *inventor* demonstrate and test the prototype in private, but the inventor and backers have the further real-world necessity before risking capital, to receive feed-back as to the potential commercial viability of the prototype in the marketplace--questions such as can it compete favorably with what's out there; is it in the form that users want or need and indicate they will buy; what is the reaction at trade shows, etc.; does it need to be changed, modified or improved to make it actually commercially useful, and/or to meet the real practical requirements of potential customers, instead of those perceived or guessed-at by the inventor?

A patent, despite how foreigners may often look at it, is not just a piece of paper; it represents the real opportunity for entrepreneurship if properly granted and used.

America, unlike the rest of the world, has accordingly always recognized that there is absolutely no way to answer these questions without actual test marketing; and it has always been America's unique philosophy to encourage the inventor to *perfect* the invention for the marketplace and thus for the real benefit of the public; and *not* just to blindly proceed with the first crude idea and leap into the Patent Office.

More than this, America, once more totally unlike the rest of the world, has deliberately and specifically tailored its laws to encourage the inventor *not* to jump into the Patent Office with the first crude or hasty approach; but, to the very contrary, diligently to refine the invention as initial market and public use experience dictates -- and then only to file in the Patent Office the most finished and "*best mode*" of realization of the invention as possible, though within statutory time constraints.

Test Marketing Essentials

In order to achieve the benefit of this technological and economic necessity of *feed-back* that underpins the real world of invention development and marketing--and again as distinguished from foreign claim-jumping into the Patent Offices with rushed conceptions and/or first crude attempts, under penalty of losing all--our law not only provides for such a public use and marketing test period, but it provides such without penalty and with protection against stealth. We protect the inventor's dates of actual invention during that period from those who would try to steal, or are stimulated themselves to file on "improvements" that may actually also be within the inventor's present contemplation and records, and that are ultimately to be presented in the inventor's patent application.

At inventors' and engineering conferences over the past years, throughout the country, I have personally encountered tens of *large company* inventors who decry their inability to take advantage of America's legal understanding of these real needs of the innovation process, because their employers require adhering to the rules of the European and Japanese laws under which they heavily trade. Though their legal departments deny us direct questionnaire access to their inventors, my MIT students and I are accumulating

their views -- painfully slowly -- by oral interviews and public meetings where their employers are not present. I have yet, however, to meet my first large company inventor who is happy with half-baked patent applications his or her employers spew out with their army of patent lawyers and patent engineers, under the pressure of the "first-to-file"- "absolute novelty" system requirements.

As for university inventors, I have documented many academic inventors and colleagues, all over the country, who either ignore their institution's efforts to force hasty application filing before they hold public seminars, demonstrations, or discussions with peers, or who just do not disclose their private developments until they are themselves satisfied with their testing and refining in light of feed-back from colleagues, including outside the institution. They refuse largely to publish half-baked papers, and many regard 18-month publication of rushed patent applications to be in this category, and often even do not want their names or reputations associated with such.

At the numerous independent and small-business conferences that my wife Joanne on behalf of her Inventors' Digest and I attend, we find that almost everyone has rejected the concept of living under the European and Japanese first-to-file, absolute novelty rules; and almost no one of that constituency now even files abroad, just because they do not perceive that it is worth it to them to lose the immunity from 18-month publication and the other protections and benefits of the current American system.

Having just returned from Japan, moreover, Joanne and I were amazed to learn from our Japanese patent associates, of their clients' frustration in losing out, in what they estimated to be about 30% of the time, to first-to-file claim jumpers of inventions that they had been earlier diligently developing.

America's *Different* Patent System: The Reason The U.S. Outperforms The World

Let us now examine the legal system that America invented and has most successfully time-tested, to match the needs of real-world innovation with complementary legal principles.

Chapter 4

Our Legal System Predicated On The First To Invent, Not The First To Claim-Jump [Comparison With First-To-File Foreign Systems]

I have earlier described why I am convinced of the unconstitutionality of a legislative fiat that black is white; i.e. that the first to file is necessarily and immutably the first inventor.

Pursuant to over 200 years of Constitutional interpretation, the unanimous decisions of all the Courts of this land, and the unanimous American definitions and interpretations of the word "inventor" (including by schoolchildren, as before stated), the Congress, the Patent Office and the Courts have operated under the following specially tailored laws and customs throughout our history -- and to the great benefit of our society and the world in general:

<p><u>U.S.A:</u> FIRST, for the integrity of our system, we require that the inventor:</p> <p>A. <i>Personally</i> and as an <i>individual</i>, must file and sign the patent application.</p> <p>B. The inventor must make a written <i>oath</i> or <i>statutory declaration</i> that the invention is "<i>original</i>" with the applicant, and that the applicant believes he or she is such <i>original, true</i>, and <i>sole</i> (or joint) inventor, - - all under pain and penalties of perjury, and all under the further consequence of a holding of invalidity of the application and any patent that may issue therefrom.</p>	<p><u>FOREIGN:</u> <i>None</i> of these requirements of A, B, C or D in any first-to-file country.</p>
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<p>C. The applicant must also represent (again under oath or declaration) the lack of knowledge of prior invention by others, or of publication or public use or prior patenting by anyone more than one year before filing.</p> <p>D. The applicant must acknowledge in writing the duty to disclose pertinent prior art and activities and to acknowledge the inventor's duty of candor before the Patent Office.</p>	<p><i>Non-existent.</i></p>
<p><u>U.S.A.:</u> SECOND, the patent applicant, as earlier mentioned, is afforded a period of one year from first public exposure of the invention -- public use, public disclosure, marketing, sale or offer for sale or lease, publication, or other public dissemination -- in which to file the U.S. patent application.</p>	<p><u>FOREIGN:</u> <i>Non-existent.</i> Even a single public exposure of any kind whatsoever before filing the application is a total bar to the patent -- so-called "<i>absolute novelty</i>" -- i.e. knowledge publicly imparted in the country before application filing, no matter how trivially.</p>
<p><u>U.S.A.:</u> THIRD, as an accompanying <i>essential</i> corollary to the one-year public disclosure provision, <i>interference proceeding</i> protection against copying, stealth or re-invention by others, or stimulation to file on the part of others who see the product on the market or hear a lecture or see a publication during the one-year public use period.</p>	<p><u>FOREIGN:</u> <i>Non-existent.</i> They really do not care how the filer derived the "invention." They require no information whatsoever, let alone an oath as to the origin of the invention. Their bureaucracy has absolutely no concern with any inventors' "rights."</p>

Without this *interference* protection, the one-year public marketing or publication period, above, is only an invitation to copying, stealth, fraud, and the possible depriving of the inventor of improvement protection in contemplation. [This is one of the reasons

why Europe is still struggling with how to institute a so-called "grace period" that they now realize is essential in the face of their current admittedly inadequate first-to- file experience.]

<p><u>U.S.A:</u> FOURTH, for those types of inventions that by their nature require a longer testing in public for proof of utility, we long ago evolved an <i>experimental</i> (not-for-profit), <i>public use</i> exception to the one-year rule -- again a recognition by <i>our</i> law of the needs of real-world technological development. This started with a highway case where the determination of the utility and potential life of the road in actual public carriage use could not be determined within the statutory two-year period of public use that was then allowed before filing.</p>	<p><u>FOREIGN:</u> <i>Non-existent.</i> Totally blind and callous to the real needs of technological development. Don't care.</p>
<p><u>U.S.A:</u> FIFTH, a sophisticated concern, under our Constitutional mandate of promoting the useful arts, for encouraging <i>quality</i> and commercial <i>usefulness</i> of invention, by affording reasonable time (with <i>interference process</i> protection) for <i>diligent</i> development and perfecting before filing the patent application -- in direct contradistinction to a race to the Patent Office. This is entirely consonant and harmonious with the way engineering and academia actually do their real-world work.</p>	<p><u>FOREIGN:</u> <i>Non-existent.</i> Of absolutely no concern. The race to the Patent Office is the end all.</p>

Our system makes it possible for academic and other researchers *diligently* to perfect their inventions in the normal processes of research and development, and not to be in danger of being totally wiped out by a new-comer's quick and perhaps only theoretical filing.

<p><u>U.S.A:</u> SIXTH, as a corollary of the item immediately above, and in <i>our</i> encouragement of <i>quality</i> and <i>utility</i>, our system positively <i>discourages</i> the filing of sketchy, incomplete, half-baked, hurried disclosures by:</p> <p>A. A legal requirement for a <i>full and complete</i> and <i>clear</i> disclosure and patent claiming, totally adequate for one skilled in the art to understand and practice the invention; and</p> <p>B. A strict legal requirement even for teaching of the "<i>best mode</i>" of implementation of the invention known to the inventor.</p>	<p><u>FOREIGN:</u> <i>No such requirements.</i> Much more sketchy and less detailed disclosures routinely accepted and indeed often inherent in the first-to-file world. U.S. examiners considering such foreign applications when filed as a corresponding U.S. convention patent application counterpart, frequently reject them as incomplete, insufficient and inadequate disclosures under our law. No apparent concern for the practice of multiple subsequent filings to try to bolster first-to-file applications hastily concocted on peril of foreclosure</p>
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Our law is also calculated not only to avoid the necessity for multiple successive modification filings for bolstering the sufficiency of the originally conceived idea, but to discourage flooding the Patent Office with such supplementary improvement filings with the concurrent resulting adding to the backlog of the examining corps.

<p><u>U.S.A:</u> SEVENTH, our law further recognizes the real-world difficulty in the early formulating of patent claims for new ideas and that must avoid world-wide prior art, but that still offer adequate and proper protection for what often only time will ultimately reveal more clearly as the proper scope of the invention. Our system, accordingly, provides <i>equitable</i> remedies. [England, that once had the genius to create "equity," has now in my view a genius-less generation which apparently has chosen to discard "equity" in deference to wearing the "same suit" as their neighbors on the Continent].</p>	<p><u>FOREIGN:</u> <i>No such considerations.</i> "Equity" is not in their lives. The state does not allow for inadvertent mistakes or for the real-world fact that the full scope of the initial invention in its infancy is not always immediately self-evident.</p>
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The U.S., more sensitively and understandingly, provides equitable remedies by way of *reissue proceedings* to correct real and honest errors in claim scope (broader or narrower); and *re-examination proceedings* for similar purposes including inadvertently over-claiming or under-claiming and also for public protection from the Patent Office inadvertently missing more pertinent prior art.

Our patent law (and, indeed, our law in all fields) conducts itself far differently from the *literal* formalistic strictness philosophy and conduct of Continental countries -- being rather postured in real *substantive* considerations not strictly *form*; indeed, with concern for balancing the equities of the inventor's proper and adequate protection against the right of the public not to be penalized by an inventor's initial mistaken

claiming. That said, our law recognizes the practical difficulties in using mere words (claims) adequately to describe very complex concepts, and from different points of view --and all at the inventor's peril. If the inventor inadvertently over claims [and who, in the beginning, can always be so clairvoyant as fully to appreciate the total scope of the infant invention], the Court will invalidate the patent. If the inventor under claims, the world is free to get around and appropriate the invention. And, of course, the inventor has the further burden of being charged legally with the actually impossible and mythical task of "knowing" everything that is known in the world.

The strictly American philosophy of enabling *reissue or re-examination* to rescue correct claim scope, while protecting the rights of the public that relied on the original patent claims as issued, is another novel American doctrine pursuant to the Constitutional mandate that Congress, in furthering its charge to promote the progress of the useful arts, is *instructed* by the Constitution to do so by "*securing*" to inventors the "*exclusive rights*" to their "*discoveries*."

Chapter Five

The Very Different Inventive Communities In The United States And Abroad

Pursuant to the climate created by the above at least seven American legal provisions by which our legal system strives to aid and indeed match the real-world needs of invention, innovation and entrepreneurship in prosecuting patent applications in the Patent Office, these sophisticated, carefully crafted, proven, time-tested and honed legal provisions have enabled America vastly to *outperform* and continue to *outperform* the whole world put together, by any measures one cares to define.

Our system has given rise to an extraordinary and unique community of independent inventors, largely *absent* elsewhere as earlier noted, and certainly absent in the relative size and importance of activity and innovation achieved by America's independent inventors.

The attempt by the Patent Office to measure the independent inventor community size by counting only the number of applications filed in personal names, as distinguished from those being shown as assigned to corporations, simply fails to appreciate the real world wherein today most individual inventors form their own infant corporations to which they assign their applications.

But even the 25 percent size acknowledged by the Patent Office “statistics,” perhaps even half again greater, does not reflect the modern story of America's independent inventors and their small businesses that are responsible for much of the *break-through* inventions and a disproportionate share of the more significant inventions.

They truly still follow the same tradition as their independent inventor forebears, such as Fulton, Whitney, Edison, Bell, the Wright brothers and our other old folk heroes. *Today* and in the recent past, while their names may not be household words, the contributions of the independent inventors (*not* the large corporations) include the ATM, the World-Wide Web, the implantable pacemaker, the MRI, the laser, the Apple computer, the PC-DOS computer operating system, the digital compact disc, the disposable diaper, Gore-tex fabric, the jet ski, the snowboard, the supercomputer, the "Walkman," the electronic calculator, "Power Bars," and quite recently, the interesting "Segway" scooter, to mention but a very few.

In recognition of this prodigious performance, our Patent Office, and to my understanding no other Patent Office in the world, has developed a special office for independent inventors in recognition of their special needs.

Included in this important independent and small business inventive community, moreover, is the *university inventor* community -- particularly those who also entrepreneur their own new businesses spun off from their academic activities--also a largely American phenomenon, and certainly in the large extent that we have developed.

And it is these strictly American phenomena that feed the large corporations with new technological thrusts and that refurbish and grow the large companies and indeed keep them surviving, as they buy-up the entrepreneurial developments of the small innovative enterprises launched on the backs of independent invention, and then contribute their talent in mass production and world-wide marketing.

Really, in this invention arena, the only thing that America has in common with the rest of the world is their large multi-national corporations. They today must live

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abroad under the rules of foreign patent systems. While they understandingly accordingly urge one universal set of harmonious rules for patent application filings and prosecution for their comfort, this would grievously be inimical to the different needs of America's independent, small-business, academic inventive and entrepreneurial communities who both historically and presently thrive under our very different American rules.

It should be noted, moreover, that the large corporations have also their economic might and muscle to compete, and now generally, perhaps with the exception of pharmaceuticals and the like, do not today belabor the "exclusive" feature of the patents; whereas the independent, small business and academic communities only have the exclusive patent rights as their protection to compete and, indeed, even get started.

Chapter Six

The Large Corporate And Some Bureaucratic Whining For "Harmonization"

Let us examine some of the "rationale" for so-called "harmonization" that we hear advanced by the "big boys," remembering that by "harmonization," they mean we jettison our system and adopt foreign laws -- *not* that the world adopts the best of theirs and the best of ours:

1. The *first-to-invent* philosophy is out of step with the rest of the world.
2. In the interest of uniformity, we should have one universal set of patent laws.
3. The protections required for first-to-invent, including *interference practice* to determine the real first inventor in the event of overlapping or interfering applications, is too costly, and time-consuming, and is only for the benefit of a tiny percentage of patent applicants; being further an inordinate burden on the Patent Office.
4. The "first-to-file" system economically solves all these "problems."

Let's discuss these points.

1. and 2. Considering, first, being "out-of-step" with the rest of the world and secondly, the quest for "uniformity"--it is not out of place to point out that so is our Constitutional Bill of Rights and the resulting extent of our freedoms "out-of-step," and far from "uniform" with their systems.

No thinking or knowledgeable American would ever want to swap. This, indeed, is the very reason why America is the greatest, most free, and most productive land in the world.

3. Turning to the American processes for determining the real inventor, rather than adopting a bureaucracy-simplifying fiat that the first to win a claim-jumping race to the Patent Office is automatically the inventor, it has been earlier shown herein that:

A. Our Constitution, in Article I, Section 8, demands "securing" exclusive "rights" to the actual "inventors" of the actual "discoveries," as those words were precisely crafted in the context of the Federalist Papers and discussions and have been used with unanimous interpretation by all our Courts since the beginning of the Constitution to the very present. Apart from the Bill of Rights, Article I, Section 8 is the only other place in the Constitution where, as earlier noted, the word "rights" is used, and certainly the only place where a specific profession has been singled out for such special "rights"; namely, "inventors" (and "authors").

B. As earlier shown in the seven features of our law detailed above, we, *not the rest of the world*, have carefully created and matched legal protections in patent application prosecution to the actual real-world way in which invention, engineering, technological development and marketing *naturally* occur and are conducted, across the board --with independent, small and start-up business, and academic inventive

communities alike -- and even, subject to their being *un-naturally* straight-jacketed by foreign patent law considerations, by the inventors of the large corporations, as well.

- C. I have personally lived through a long course of the earlier cumbersome, expensive, time-consuming, legally ritualistic past era of interference practice for many clients, and long before that, briefly as an Examiner. Unlike many patent lawyer colleagues of my present age in the large corporate sector who are today urging the "first-to-file" roseate, however, I am *still* actively engaged in *current interference* practice on behalf of small-business clients. I can personally and positively state that the modernized interference practice of today, using affidavits (not testimony), expedited time schedules, and simple procedures, has made the process straight-forward, inexpensive and quick (the interference judges simply don't stand for delaying tactics!).

Most recently, I obtained a final decision of first inventorship over the first filer for my later-filing clients in less than a year from the instituting of the interference.

- D. The record on current interference practice compiled by my MIT graduate students, shows, moreover, that in more than 25% of the cases, the *later-filing* applicant won all the claims as the true first inventor over the earlier first-to-file; and in an additional 30% of the cases, the later-filing applicant was declared the true first inventor of at least *some* of the claims, over the first-to-file. Thus, in *half or more* of

the cases, the real inventor would have been deprived of a patent to which the Constitution assures entitlement, had we lived under a first-to-file environment.

4. The economic "benefit" of first-to-file is perhaps the proponents' worst argument.

While these interferences involve only a very small percent of pending patent applications, they represent absolutely the *only* safeguard of an inventor's Constitutionally mandated "rights"--"rights" that, as actually shown, are neither mandated, nor of concern in the state policies and patent laws of the rest of the world. America, indeed, unlike the rest of the world, is and always has been vitally concerned with the preservation of *individual* rights over the state. It is no excuse in *our* way of life, for the state to argue abridgement of individual rights upon economic, budgeting, or any other grounds, and certainly not on grounds of alleged efficiency.

Because the police obtain criminal convictions in the 90 percentile, is no *American* excuse for abridging the "right" to full due process, irrespective of expense--or inefficiency, on the ground that this is just for the benefit of a small percentage (in this case, the innocent).

Nor can the tactics of bureaucrats be tolerated in equating budgetary costs with individual "rights" under American culture. This, the more so, particularly where it is *solely* the inventors and *not* the public (and certainly *not* a single one of these bureaucrats), who contribute the funds for the sole support of the Patent Office, and do so on the understanding that they are supporting interference, reissue and re-examination safeguards of their "rights" with their very own money.

Chapter Seven

The Folly Of So - Called "Harmonization"

The whole world, since the time of our Constitution to the present, save later Canada and the Philippines, has been a "first-to-file" world. This first-to-file concept, however, was certainly *not*, as some think, created by the European patent law and later the Japanese and other foreign country patent laws after World War II. *It is, in fact, nothing new at all!!*

Its corollary of the "absolute novelty" restriction requiring no prior knowledge or publication before filing, is also centuries-old in some countries.

The proof of the pudding, it has been said, is in the eating.

Well, what have the first-to-file-absolute novelty patent systems of Europe and the rest of the world -- also tested over the past 200 years since our American Constitution -- got to show for themselves in comparison with the results attained under the American system pursuant to our Constitution?

Lesser standards of living.

Lesser innovation.

Lesser businesses, and lesser small businesses.

Lesser freedoms.

Lesser choices.

Lesser independent inventor and academic inventive communities.

Lesser technologically based start-up companies.

Lesser academic technology spin-off, new enterprises.

Longer times from actual filing to grant of patents.

Greater numbers of patent bureaucrats.

Greater fees and cost to inventors including by much heavier and annual taxes.

Need I say more?

Why should we even want to contemplate joining the losing team?

And perhaps the most telling bit of "harmonization" nonsense in my opinion is, what good does a "harmonized" set of rules for *obtaining* patents do, when once a patent issues from a Patent Office, there are such hopeless unharmonized differences of legal *enforcement* rules, customs and even integrity in the other communities of the world?

Are we also to be asked to "harmonize" our legal court enforcement system by stripping away still other Constitutional guarantees in addition to Article I, Section 8?

If so, with which of the "Heinz 57 different varieties" of the rest of the world shall we "harmonize"-- give up discovery, no cross-examination, no jury, no sanctity of oath, political interference, conflict of interest, etc. etc.; and above all, acceptance that the state is supreme over the individual.

What good is the "harmonized" procurement of a patent when there is far from "harmony," let alone real and effective opportunities, in enforcing the same in the rest of the world?

How shallow we are--discussing nonsense while not even addressing the real challenges we should be working on if the dream of a modern world patent system is really an ultimate goal.

Are all technologies today suited to be fitted to the same type of patent applications and even patents? Should the patent system be belabored for "everything under the sun"? When can enlightened interdisciplinary-evolved public policy considerations over-ride the legalistic strangle-hold on thinking? Have we outlived the dinosaur courts at least in technologically based disputes?

Do large companies need the same rights today as start-up entrepreneurs? Are small entrepreneurs to be shackled with the same restrictions, tax and competition laws as large companies?

These are among the real questions of today in my opinion.

Were the world, indeed, to emulate *our* system and *our* protections, and try to "harmonize" with *our* provenly better ideas and the more free and more productive life stemming therefrom [remembering that America is indeed a miniature version of the world, and a highly successful model of all countries already working together in "harmony"], we might start the rest of the world on a useful, if not fruitful track.

Lastly, do our politicians clamoring for "harmonization" even know that while America is Constitutionally a first inventor country, we long ago "harmonized" with any administrative advantages that may reside in the first-to-file philosophy?

In our Patent Office, we have, since the time of the Constitution and today, always treated the *first-to-file* as also the *first* (and real) *inventor*!

The thing that distinguishes us, however, from the other first-to-file countries, is that our law treats this only as a *presumption*, rebuttable by the real inventor. Our law has accordingly created the before-discussed *interference* safeguard process, not only to permit such rebutting in the interest of justice as appropriate, but also to safeguard against stealing and fraud, with which foreign first-to-file systems provide no assistance whatsoever.

We are far ahead of the crude "first-to-file" systems of the rest of the world in our sophistication of a rebuttable presumption, which then allows us also to satisfy the mandate to Congress under Article I, Section 8, to secure the "exclusive rights" to the real "inventor" of the "discovery."

Jim, the rest of the world is not even in our league!

As earlier shown, its thinking has produced and still produces results far inferior to ours.

We should not let "losers" (or to be generous, *under-achievers*) lead (nay, *mislead*) us for some illusory Pied Piper trade or other promises -- none of which is the slightest bit understandable to me.

And a word to Congress.

There is a reason why the whole technological community trusts the Patent Office with their most confidential secret invention disclosures long before they're known to the public. We have developed at least one federal agency that is trusted and has proven thoroughly honest; and, to my knowledge, in over 55 years of practice, has never violated the confidentiality undertaking for inventors disclosures, nor succumbed to the

temptation of bribes or special favors. Inventors trust the integrity of the engineers and scientists who examine their most commercial secrets under sworn fiduciary obligations.

There is sadly no such trust in politicians (perhaps the understatement of the millennium!)

And so far, no member of Congress has yet, to my knowledge, been so bold or so brazen or foolhardy, or anxious to go to jail, as to stick his or her fingers into this fiduciary mechanism of the Patent Office.

But today and in the recent past, the politicians have been getting bolder in trying to swap patent system provisions for political and bargaining purposes. Though arrogantly thinking they really understand--having in many instances been coached by large corporate lobbying lawyers, even including the likes of the Enrons -- they have several times come dangerously close to perhaps killing the goose that has been laying the golden egg. Not that they want to, but because they do not appreciate the sensitive nuances of the framework of principles built up and honed by experience over two centuries as above outlined.

I must confess I do not see a Madison or a Pinckney or a Jefferson in their midst, or anyone even approaching the intellect, understanding and wisdom of the creative founders of our patent system; but know-it-all politicians may grandiosely mistake who they are, as they seem to mistake themselves for the President or Secretary of State or Secretary of Defense, and they may throw a monkey wrench into the very delicate machinery that actually makes our patent system outperform the world.

To use patent provision give-aways for political purposes and trade-concession bargaining is in my mind as akin to treason (even if done stupidly) as one who

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deliberately and/or carelessly blows up the mechanisms of our government and industries.

For over 200 years we have developed a patent system that enables us to outperform the whole world put together. Why are there some in Congress who either have such inferiority complexes or such a real ignorance of what actually makes Uncle Sam tick, that they feel they must look to the second and third-best models abroad?

Jim, I have heard not a single sensible word from the would-be "harmonizers" as to any compelling reason why we should just now abandon our patent system birthright, or in what respect Europe's ideas have *proven* compellingly more desirable and more fruitful and have outperformed ours.

They have not sustained any burden of proof, even to a scintilla of evidence -- and I hope and trust, as an experienced trial lawyer, that you'll hold their feet to the fire.

Let us know if we can be of further help.

Robert H. Rines
Boston, Massachusetts
May 9, 2002