# A MARKET-ORIENTED REVISION OF THE PATENT SYSTEM

## I. INTRODUCTION

This Comment will propose a rather fundamental change in the patent system of the United States. That a change is necessary is frequently recognized by industry,[1] the legal profession,[2] and many public officials.[3] It is the thesis of this Comment that the shortcomings of the present system—inordinate delay, inefficiency, and insufficient flexibility to cope with an increased volume of highly technical inventions—are destructive of the ends that a rational patent system should further.

In order to analyze effectively the need for a change in the present system, an attempt must be made to ascertain what the ends of a rational patent system should be. This will be done by examining the philosophical justification for patent rights, that is, the nature of the relationship between the inventor and society. A set of requirements for the patent system will then be distilled from the underlying philosophic principles, which will provide a theoretical framework on which the succeeding analysis will be built. The present system will be examined, measured against these requirements, and, where shortcomings are apparent, the reasons for these shortcomings will be analyzed. A new patent system will then be proposed, one designed to avoid the difficulties of the present system and one that is fully consistent with the requirements previously stated.

## II. PHILOSOPHY OF PATENT RIGHTS

### *A. Patents: Property Rights in Ideas*

The concept which is basic to the patent system is that of a property right in ideas, for it is that right which the system is de-

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[1] *See* Hess, *Introduction* to CREATIVE FERMENT IN WORLD PATENT SYSTEMS 3 (Nat'l Ass'n of Mfrs. ed. 1965).

[2] *See* R. RINES, CREATE OR PERISH 116 (1964) [hereinafter cited as RINES]. The necessity for change is recognized particularly by the patent bar. *See* Weissman, *An Editorial on Patent Invalidity*, 55 J. PAT. OFF. SOC'Y 280 (1973).

[3] Federal district court Judge Miles W. Lord is quoted as saying that the Patent Office "has got to be the sickest institution that our government has invented." L.A. Times, Oct. 3, 1973, pt. I, at 8, col. 1. Judge Hubert L. Will, another federal district court judge, expressed a similar opinion when he stated

signed to protect.[4] There are, however, some conceptual difficulties involved in fully understanding the meaning of exclusive rights in intellectual property which must be examined and overcome; constructive reform of the patent system can best be achieved if the underlying conceptual bases are fully understood. The major conceptual difficulty lies in ascertaining the justification for granting exclusive rights over intellectual property, which is, as will be shown below, somewhat different from the justification for protecting the ownership of tangible property.

Fundamentally, the right of property in an idea is not unlike the right of property in a tangible entity. It can be characterized as the right to exclude others from use of an entity over which one has gained control by means recognized as valid. The conceptual difficulty with ownership of intangibles is their very intangibility. Unlike a house or a car which one can touch and whose ownership one can protect by the physical exclusion of others, an idea has no such physical qualities and once made public, it can be protected only by enjoining others from imitation. Furthermore, since tangible objects can be used and possessed by only one person at any one time, an individual who dispossesses another of a tangible object totally deprives him of the benefit of that object. The philosophical justification for protection of property rights in such instances is that to deprive an individual of objects which he has spent his time and effort acquiring by legitimate means is to deprive him of things which make his life more comfortable and enjoyable and ultimately (in the absence of all property rights) of the means for sustaining his life.[5]

Intellectual property, however, is different. One need not have exclusive possession of an idea in order to derive benefit from it. If one individual conceives an invention and a second individual copies it, that copying does not prevent the inventor from using the idea also. Thomas Jefferson made this point quite well when he wrote:

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that the Patent Office "has got to be the weakest link in the competitive system in America." *Id.* *See* 86 L.A. Daily Journal, Sept. 28, 1973, at 1, col. 2 (reporting a proposal by the President for overhauling the patent system); *Remarks by Senator Philip A. Hart on the Introduction of His Patent Reform Act of 1973*, BNA PAT., TRADEMARK & COPYRIGHT J., March 22, 1973, at A-1 to A-3.

[4] *See generally* RINES, *supra* note 2.

[5] This is necessarily true because if an individual spends his time and effort acquiring an object, that object must, in his judgment, be necessary for promoting his life and comfort. For instance, to deprive a man of the house he has built for shelter or the corn he has grown to feed himself would clearly be detrimental to his life. Thus, if he did not have exclusive rights over these objects and they could therefore be taken away from him, this deprivation would cause him great discomfort and ultimately death.

> "If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea, which an individual may exclusively possess as long as he keeps it to himself; but the moment it is divulged, it forces itself into the possession of every one, and the receiver cannot dispossess himself of it. Its peculiar character, too, is that no one possesses the less, because every other possesses the whole of it. He who receives an idea from me, receives instructions himself without lessening mine; as he who lights his taper at mine, receives light without darkening me."[6]

Due to this fundamental difference between intellectual and tangible property, it follows that exclusive rights in ideas cannot be justified on the same grounds as can exclusive rights in tangibles. It does not follow, however, as is implicit in Jefferson's statement, that intellectual property cannot or should not be owned exclusively. Rather, it means that a different line of analysis must be undertaken, one consistent with the intangible nature of intellectual property, in order to determine how, why, and to what extent ideas should be exclusively owned by the inventor.

Intellectual property is not commonly generated spontaneously. Ideas, specifically ideas embodying perfected inventions, are the work product of the inventor. The path that leads from the first distant glimmer of an idea in the mind of the inventor to the perfection of an actual invention that can be applied to solving the problems of everyday life requires time, effort, preserverance, and ingenuity. Before an invention can come into existence so that others may imitate it, an individual has to devote his creative efforts to devising that invention. Yet, if everyone is free to imitate it when perfected and revealed, the inventor will have no compensation for the effort he has exerted.

The generation of ideas is beneficial to all members of society. Yet, no power can force a man of genius to use his time and talent, which he could otherwise spend promoting fully his own welfare, to conceive an idea which will benefit everyone, including those who have not spent this effort while giving him no special advantage. More important, no power can cause an inventor to reveal,

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[6] 6 WRITINGS OF THOMAS JEFFERSON 180-81 (H. Washington ed. 1854), *quoted in* R. CHOATE, CASES AND MATERIALS ON PATENT LAW 2 (1973) [hereinafter cited as CHOATE]. It should be noted that Jefferson's view was *not* typical of that of the Founding Fathers. Jefferson himself had reason to change his point of view somewhat when, as Secretary of State, he filled the role of patent examiner and had an opportunity to see the patent system in action. In a letter to Oliver Evans, May 2, 1807, he was compelled to state that the patent law gave " 'a spring to invention beyond my conception,' " and that therefore, " 'nobody wishes more than I that ingenuity should receive a liberal encouragement.' " 5 WRITINGS OF THOMAS JEFFERSON 74 (A. Bergh ed. 1907), *quoted in* RINES, *supra* note 2, at 11.

against his will, the secret to an invention of which he alone is aware. Before it is revealed, an idea by its very nature (*i.e.*, by the fact that it exists only in the mind of the inventor) remains the exclusive and unalienable property of the man who conceived it.

The holder of an unrevealed invention has two options. First, he may voluntarily reveal his invention, in which case he confers a gift upon everyone else in the world. Although he alone exerted his time and effort in creating and perfecting the invention, in this situation he is, as a result of his diligence, in no better position than anyone else. His second option, and the only one which will get him a measure of reward for his effort, is to keep the secret. History is replete with examples of trade secrets which were kept in the family or within the bounds of a small group, such as the guilds of the middle ages.[7] It is crucial to recognize that, given complete secrecy or complete disclosure as the only alternatives, the incentive will be against disclosure insofar as secrecy is possible; insofar as secrecy is not possible, research and development in the area will be discouraged.[8] Disruptive and detrimental as reliance on secrecy was to the development of the middle ages, it would mean absolute chaos today, a time in which technology plays such a major role in everyday existence.[9]

Secrecy is detrimental to both the inventor[10] and to society at

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[7] The method for mixing paints used by masters such as Titian which have resulted in paintings which keep their fresh color despite the passage of centuries, is a secret that has been lost and not duplicated in modern times. W. PHILLIPS, THE LOST ARTS 17 (1836). Another secret apparently lost through the ages is that for making malleable glass (*i.e.*, glass that bends rather than shattering upon impact). *Id.* at 13.

[8] Those who doubt that this is the case may find the following remarks enlightening:

> The U.S. drug industry leads the world in development of new medicines. During the 20-year period from 1941 to 1961, 544 major new drugs were made available. Nearly two-thirds of these originated in the United States, 316 came from the laboratories of the pharmaceutical industry, and only 25 came from educational and other non-profit institutions and the government.
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> In contrast, Italy and Russia, which offer no meaningful patent protection, have registered *not one single significant pharmaceutical discovery in modern history.*

Connor & Wolk, *The Role of Patents in Pharmaceutical Innovation,* in THE LAW OF CHEMICAL, METALLURGICAL AND PHARMACEUTICAL PATENTS 25, 27 (H. Forman ed. 1967) (emphasis added) [hereinafter cited as Connor & Wolk].

[9] For a discussion of the detrimental effects of secrecy, see notes 10-11 *infra.*

[10] A retention in secrecy, even for years, of wonderful discoveries by great individuals in industry could lead to disastrous retardation of the general progress of science, and if my thesis is correct that individual greatness is necessary for general progress, then it simply is not true that the same discoveries are likely to be made anyhow, somewhere, at some time. By every definition the things we care about most do not occur spontaneously in multiple because they are the result of a very special way of seeing, by a very special mind.

large.[11] Given that such a situation is bad for all concerned, an exchange in which society and the inventor interact for their mutual benefit becomes necessary. This "trade" should be the basis for a rational patent system. Somewhere between the two extremes of absolute secrecy and total disclosure, a third alternative can be created, one where the inventor retains some degree of control of the invention although society obtains the benefits of disclosure.

The creation of an exclusive right to use the invention in exchange for the inventor's revealing his discovery is the core of the exchange and provides this third alternative. In a recent decision by the Sixth Circuit Court of Appeals, Chief Justice Phillips stated this proposition in the following manner:

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Address by Dr. Edwin H. Land, President of Polaroid Corporation, Boston Patent Law Ass'n Annual Dinner, April 2, 1959, in CHOATE, *supra* note 6, at 76. Land also said:

> The almost automatic operation of the patent system in a good corporation enables the scientist to discover, to invent, to publish, to participate in the scientific activity of the academic world unselfconsciously and naturally, knowing that the corporation which is supporting him will be protected, and that the scientific world in which his mind is rooted will be continuously repaid by the prompt publication, both in patents and in scientific journals, of all that he has learned. The horrible, unthinkable alternative to all this is the cesspool of secrecy, and industrial environment filled with spies, and industrial environment in which a true scientist would be embarrassed to participate because he could not talk freely of what he knew, and he could not use freely what he had learned.

*Id.* at 75.

[11] The development of the drug "Aldomet" presents a typical example of how disclosure of inventions is necessary to the good of society. Two Merck (a drug manufacturing company) scientists experimented for several years with compounds for lowering blood pressure. They were able to isolate a group of compounds having the desired test-tube characteristics but had no experimental proof of their therapeutic value because the knowledge and techniques for proving the efficacy of the drug in animals and humans were lacking. Because they had acquired patent protection for the compound, the Merck scientists were able to send samples to scientists throughout the world for experimentation without fear that the company would lose the benefit of the invention. After several years two West German scientists developed the proper techniques to test the efficacy of the compounds. This proof plus the assurance of patent protection warranted Merck's further investment of $11 million in an extensive research program which included tests in hospitals and universities throughout the world. *See* Connor & Wolk, *supra* note 8, at 32-34. As was pointed out by the Merck representative who gave a detailed description of the "Aldomet" story, it was the ability to divulge the secret and secure the cooperation of the entire scientific community that was instrumental in the development of this life-saving drug:

> [W]ithout patents we would have been inhibited in carrying out comprehensive tests and in publishing the results. We would have had to work in secret. Yet it was the publication of the early research, you recall, which excited the interest of other scientists and stimulated them to investigate in their own research. Their results in turn encouraged others, to the point where we assembled tangible proof—first in animals, then in man—that 'Aldomet' would actually do what we had expected.

*Id.* at 34.

> Soon after making a discovery, an inventor must decide whether to protect his invention by a patent or to maintain it as a trade secret. It is public policy to encourage the disclosure and public use of ideas as opposed to the maintenance of trade secrets. The exclusive rights conferred by a patent grant are designed not only to encourage invention, *but more importantly, to disclose the invention to the public.* It is through disclosure that others will be given the opportunity to improve on the invention.[12]

Since it is a bargain that is being struck between society and inventor, the terms of the deal are crucial in determining how efficiently the exchange will operate. The terms of the bargain (*i.e.*, the operation of the patent system) must be such that it is fair to both sides, for it should not be forgotten that there are options other than patenting open to the inventor. And to the extent that either side tries to avoid carrying its side of the bargain, exchange will be inhibited and both sides will suffer. In the case where the inventor does not live up to his part of the deal, his right to exclusivity will be forfeited.[13] In the case where society erodes the rights of the inventor and the deal does not appear attractive enough to him, he is likely to keep his secret or, worse yet, never expend the effort of creation in the first place.

### *B. Goals of a Rational Patent System*

In order to define the terms of the bargain, that is, what each party—the inventor on the one hand and society on the other—must give up and what it should get in return, the interests of both parties must be examined. Society has an interest in advancing the state of technology and industry. Ideally, those with talent, perse-

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[12] Troxel Mfg. Co. v. Schwinn Bicycle Co. 465 F.2d 1253 (6th Cir. 1962) (emphasis added). *See also,* Sease, *Common Sense, Nonsense and the Compulsory License,* 55 J. PAT. OFF. SOC'Y 233, 253 (1973) [hereinafter cited as Sease].

[13] An illustration of this fact in the current law is the requirement that the specifications accompanying the patent application include "exact terms as to enable any person skilled in the art to which it pertains . . . to make and use the same and . . . *the best mode contemplated by the inventor of carrying out his invention.*" 35 U.S.C. § 112 (1970) (emphasis added). In other words, a disclosure of the full secret is a prerequisite for patent protection. An illustrative case in point is that of several German concerns (such as I.G. Farben) who, until around 1920 had a monopoly on certain organic chemicals, especially dyestuffs. This monopoly was maintained here by a number of United States patents. A large number of these patents were invalidated because the German concerns, in an attempt to maintain secrecy in the field, had not provided the best mode of preparing their invention in the patent applications. After giving the above example, a commentator makes the following remarks:

> [I]n essence a patent is a contract between the United States and the inventor wherein the inventor is given a 17-year monopoly by his patent in return for his disclosure to the American public of his invention. The consideration given by the inventor for his monopoly is

verance, and expertise to devote to designing new methods for producing known goods or inventing new goods should spend their time at this creative task and, when creation or discovery occurs, reveal their newly developed product. Clearly, society's interest is best served when this discovery and disclosure takes place as quickly as possible. It is also beneficial for society to have this new discovery thoroughly examined, perfected, tested, and put at the disposal of those who would buy it. This should be done quickly, efficiently, and automatically. Information concerning the new product should be disseminated freely and quickly to avoid duplication of effort by others who might be working on the same invention and to allow other inventive minds to structure further improvements on the new concept.

The inventor's primary goal is to receive compensation for his effort and ingenuity commensurate with both this effort and with the benefit accruing to others from his invention. In most cases, he wants some degree of control over how his invention is developed and marketed and desires recognition as the originator of the invention.[14] He seeks security against possible independent discovery of the invention by others and against the risk of security leaks should he be forced to keep the invention secret, as he would be in the absence of patent protection.[15]

The granting of a limited[16] exclusive right to the practical application of the idea is consistent with the interests of both parties.

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> that the American public did not possess his invention prior to its disclosure in his patent. If the inventor fails to make an adequate disclosure of his invention, there is, in essence, a failure of consideration on his part that invalidates his patent.

A. SEIDEL, WHAT THE GENERAL PRACTITIONER SHOULD KNOW ABOUT PATENT LAW AND PRACTICE 49-50 (1966) [hereinafter cited as SEIDEL].

[14] *See, Floor Discussion on Papers Delivered*, in THE LAW OF CHEMICAL, METALLURGICAL AND PHARMACEUTICAL PATENTS 43-44 (H. Forman ed. 1967) [hereinafter cited as *Floor Discussion*].

[15] The following remarks, made by Dr. Rossman in response to a comment regarding possible uses of secrecy in the chemicals industry, point out some of the difficulties of reliance on secrecy:

> [R]eliance on secrecy is a very unsafe procedure. Another factor which I have heard mentioned is that, in the chemical industry as a whole, they say that any company that tries to keep a process secret cannot succeed in doing so, no matter what the course taken, for more than about 3 to 5 years. In other words, the secret seems to leak out through employees, or through duplicating the same work independently, or by salesmen talking too much.

*Floor Discussion, supra* note 14, at 48.

[16] The reason that the grant of exclusivity is limited in time, rather than perpetual, is twofold. First, during the period of the patent grant the inventor has exclusive rights to the use of the invention which are good against everybody, including possible independent inventors. This security he would not have if he were to keep his invention secret (in which case he could keep exclusive use of the secret perpetually). By granting the inventor exclusive use, society is giving up the possibility that someone else could invent the same product some time later, in which case society would perhaps get the invention

The inventor is provided an incentive to reveal since he will receive absolute security while not giving up the exclusive possession which secrecy would afford him. Society gains access to the idea and has the inventor as its voluntary agent who, anxious to collect the reward for his past efforts, desirous of recognition, and thoroughly acquainted with the invention, will act to discover the best and speediest possible development of the idea. Given the speculative aspect of the new invention and the necessity to cover development,[17] production, and marketing[18] costs—expenditures which are

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for free, or more likely that the secret will leak out with the same result. Basically, this is a bargaining rationale. Each side is giving up something and gaining something in return.

The second rationale is that once an idea is revealed, adopted as part of the culture of a society, and thoroughly absorbed into the technology of a nation, an invention becomes a block upon which others build. Through these external efforts, the idea may become a source of unlimited wealth—wealth far removed in scope from the contribution of the original inventor. An eminent philosopher states this proposition in the following manner:

> The right to intellectual property cannot be exercised in perpetuity. Intellectual property represents a claim, not on material objects, but on the idea they embody, which means: not merely on existing wealth, but on wealth yet to be produced—a claim to payment for the inventor's or author's work. No debt can be extended into infinity.
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> Material property represents a static amount of wealth already produced. It can be left to heirs, but it cannot remain in their effortless possession in perpetuity: the heirs can consume it or must *earn* its continued possession by their own productive work. The greater the value of the property, the greater the effort demanded of the heir. In a free, competitive society, no one could long retain the ownership of a factory or of a tract of land without exercising a commensurate effort.
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> But intellectual property cannot be consumed. If it were held in perpetuity, it would lead to the opposite of the very principle on which it is based: it would lead, not to the earned reward of achievement, but to the unearned support of parasitism. It would become a cumulative lien on the production of unborn generations, which would ultimately paralyze them. Consider what would happen if, in producing an automobile, we had to pay royalties to the descendants of all the inventors involved, starting with the inventor of the wheel and on up. Apart from the impossibility of keeping such records, consider the accidental status of such descendants and the unreality of their unearned claims.
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> The inheritance of material property represents a dynamic claim on a static amount of wealth; the inheritance of intellectual property represents a static claim on a dynamic process of production.
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> Intellectual achievement, *in fact*, cannot be transferred, just as intelligence, ability, or any other personal virtue cannot be transferred. All that can be transferred is the material results of an achievement, in the form of actually produced wealth. By the very nature of the right on which intellectual property is based—a man's right to the product of his mind—that right ends with him. He cannot dispose of that which he cannot know or judge: the yet-unproduced, indirect, potential results of his achievement four generations—or four centuries—later.

Rand, *Patents and Copyrights*, in CAPITALISM: THE UNKNOWN IDEAL 130, 131-32 (A. Rand ed. 1967).

[17] Development costs are approximately ten times as great as pure "inventive" costs. Holst, *Patents and their Contribution to the Economy*, in THE LAW OF CHEMICAL, METALLURGICAL AND PHARMACEUTICAL PATENTS 3, 7 (H. Forman ed. 1967).

[18] Production and marketing costs of a new product are some one hundred times as great as pure "inventive" costs. *Id.*

not necessary for the production of known and tested products—the right to exclusivity is essential as a means for automatically allocating the necessary investment capital. This is so because an investor, before he puts money and efforts into a product whose viability is yet unproven, will seek assurance that if the invention is eventually transformed into a marketable product a competitor cannot simply copy the product, take advantage of the market the investor has developed, and, having saved the costs which the original investor had to extend to put the product on the market, undersell him.[19] Thus, granting an exclusive right to the inventor maximizes the chances that the product will be put on the market quickly.[20]

The extent to which benefits will accrue to both sides of the bargain depends on how effectively the exchange takes place. To strike the optimal bargain, the goals of both parties must be translated into functional terms, isolated, and then used as the basis for designing a rational proposal.

The inventor's desire for a speedy return on his investment means in functional terms that the patent right should be granted quickly and with a minimum of difficulty. The inventor's desire that he be assured compensation commensurate with his effort and with the benefits accruing to others as a result of his invention means, in functional terms, security. The right of exclusivity given to him should be precisely defined, universally recognized, defended against attackers, and enforced against infringers. His desire to have control over the development of the product and its marketing

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[19] Regarding Merck's $11 million investment in the drug "Aldomet," discussed at length in note 11 *supra*, Mr. Connor made this point quite concisely:

> [A]ssurance of patent protection justified the company's investment in this 12-year venture with multimillion dollar expenditures for laboratory and clinical research and for production facilities and engineering techniques. If imitators and "free loaders" could have moved in, once Merck had performed the tests, perfected the drug, and built the market, there would have been no incentive to Merck . . . and no 'Aldomet' to help the many millions in the world who suffer from hypertension.

Connor & Wolk, *supra* note 8, at 34. It was also noted that:

> [W]ithout patent protection, Merck could never have followed through on the initial discoveries of Dr. Pfister and Dr. Stein. The hopes and prospects would have been too tenuous if we could not have been assured of exclusive rights for a time, which offered the opportunity of getting back our original investment.

*Id.*

[20] The following exchange between Senator Kefauver and Dr. Vannevar Bush during the drug hearings of 1961 gives sharp focus to this point:

> *Senator Kefauver*: Suppose Dr. Fleming had taken out a patent [on penicillin]?
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> *Dr. Bush*: Ah, if he had, we would have had penicillin ten years earlier than we finally got it.

*Hearings on S. 1552 Before the Subcomm. on Antitrust and Monopoly of the Senate Comm. on the Judiciary*, 87th Cong., 1st Sess. 2199 (1961).

means that his right must be fully alienable by him yet unalienable by others without his consent. His desire for recognition as the originator of the advancement means that the system must minimize the need for secrecy and promote the giving of notice to both the scientific community and to the public at large.

These four goals—*speed*, *security*, *alienability*, and *notice*—fully coincide with the goals of society. A secure, fully alienable patent will provide an attractive alternative to investors and thus give a new invention an equal chance to compete for capital with existing products. Notice given to those in the same field of research will prevent duplication of effort and permit competitors to build upon the new advancement or engineer around it.[21] And, of course, it is in society's interest that development and marketing of a new idea be completed as quickly as possible. Therefore, a speedy resolution of the status of an invention (*i.e.*, whether a patent is to be issued) results in either a speedy move into production or a speedy continuation of research to perfect the invention to the point where it meets the patentability standards.

Before examining the extent to which these four values are being promoted by the present system, an understanding of how the system functions is necessary. The next part of this Comment shall, therefore, give a procedural overview of the present patent system.

## III. Procedural Aspects of the Present Patent System

The patent system of the United States requires a novelty search[22]—a determination of the allowability of the inventor's

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21 The following example provides an illustration of how the process operates:

> The existence of a patent forces competitive improvement and innovation upon those who would stay in competition. If a patent holder rests smugly on his laurels, particularly if his patent figures in the pharmaceutical industry, he will be due for a rude awakening when he sees his product knocked out of the market by a new and better product.
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> I can speak to this point from personal experience in my own company. After our steroid breakthrough of 1949, Merck had 100 per cent of the steroid market in 1950 and 1951. By 1952 competitive products had knocked us down to 77 per cent, and in 1953 our share of the market dropped to a little more than 50 per cent. Our original steroid product, 'Cortone,' which had supplied 100 per cent of sales in 1950, retained only an inconsequential share of the market by 1958. If we had sat back and relied on 'Cortone,' we would be out of the steroid market today.

Connor & Wolk, *supra* note 8, at 34.

22 The alternate form of patent system is the registration type used by a minority of countries. Under the registration system, the patent authority does not determine the validity of the patent but merely registers the applicant's claim. The determination of validity is made in court when the patent is sought to be enforced.

The United States has had experience with the registration system. The

claim before the patent is issued.[23] Clearly, such a determination is necessary because not every claim of an inventor can be automatically recognized as a patentable invention. Certain criteria are required to guard against plagiarism, wrongful claims, and lack of utility and to weed out changes which are so minimal as not really to constitute a valuable contribution on the part of the claimant. Each claim is then measured against these criteria and the allowability and scope of the claims presented are thereby decided. The novelty search conducted by the Patent Office consists of an examination of both existing patents and literature in the specific field to determine whether the invention is indeed novel and unobvious.

The present United States patent system stems largely from the Patent Act of 1836,[24] which established a Patent Office[25] and a Commissioner of Patents to conduct a novelty examination and to make a determination of whether the invention was "sufficiently useful and important."[26] The statute governing the operation of

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Patent Act of 1793 instituted, in effect, a registration type system with validity of the patents to be determined by the federal courts. By 1836, this type system had resulted in much patent fraud and burdensome litigation involving patents. These evils were outlined in an 1836 Senate Committee Report:

> 1. A considerable portion of all the patents granted are worthless and void, as conflicting with, and infringing upon one another, or upon, public rights not subject to patent privileges. . . .
> 2. The country becomes flooded with patent monopolies, embarassing to bona fide patentees, whose rights are thus invaded on all sides; and not less embarrassing to the community generally, in the use of even the most common machinery and long-known improvements in the arts and common manufactures of the country.
> 3. Out of this interference and collision of patents and privileges, a great number of lawsuits arise, which are daily increasing in an alarming degree, onerous to the courts, ruinous to the parties, and injurious to society.
> 4. It opens the door to frauds, which have already become extensive and serious. It is represented to the committee that it is not uncommon for persons to copy patented machines in the model-room; and, having made some slight immaterial alterations, they apply in the next room for patents. There being no power given to refuse them, patents are issued of course.

S. Doc. No. 338, 24th Cong., 1st Sess. (1836), *reprinted in* 18 J. PAT. OFF. SOC'Y 854, 857 (1936).

[23] It should be kept in mind that even under the present system the ultimate fate of the patent may lie with the courts even *after* a positive disposition by the Patent Office. If the patent is challenged, or if the patentee seeks to enjoin others from use of the patented invention, the validity of the right (involving issues of novelty, inventorship, etc.) may be reviewed by the court, and the determination of the Patent Office with respect to the validity of the patent may be voided. *See* 35 U.S.C. §§ 281-82 (1970).

[24] Ch. 357, 5 Stat. 117 (1836). *See* S. Doc. No. 338, 24th Cong., 1st Sess. (1836), *reprinted in* 18 J. PAT. OFF. SOC'Y 854 (1936).

[25] At that time the Patent Office was a bureau of the Department of State; it is presently part of the Department of Commerce. *See* RINES, *supra* note 2, at 12.

[26] This latter requirement is still part of the law, but it is no longer extensively applied.

the present system is the Patent Act of 1952.[27] The Patent Act is divided into three parts. Part I deals with the structure of the Patent Office, Part II with the procedure for investigating applications and granting patents, and Part III with the nature of the patent right and the enforcement thereof. Although the proposal for change which this Comment will make concerns primarily the issuing and enforcement process, the portions of the act which deal with the characteristics of a patent will be mentioned because they demonstrate the nature and complexity of the process which the Patent Office undertakes in issuing a patent, and they thereby provide an insight into the types of problems that must be overcome.

The process of applying for, obtaining, and enforcing a patent in the United States is often complex and by any standard time consuming. The applicant first files an application with the Patent Office which includes a list of specifications, and drawings if appropriate, in which he describes the nature, composition, and function of the invention. In addition, he must state one or more claims as to what he considers to be his improvement on the prior art[28] over which he seeks the right of exclusivity.[29] In the Patent Office, the application is handled by a patent examiner who must determine: (1) Whether the subject matter of the application falls within one of the statutory classes of invention;[30] (2) whether it

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> A prerequisite for a United States patent is that an invention be useful. Fortunately, the standards of utility where frivolity is not involved are very low. Otherwise, the first radio tube or first telephone would have faced a needless barrier. However, chemical compounds that are novel but serve no known useful purpose have been held to be unpatentable for this reason.

SEIDEL, *supra* note 13, at 18.

27 35 U.S.C. §§ 1-293 (1970).

28 "Prior art" refers to the level of technology (*i.e.* the nature and complexity of inventions) in a particular field. *See* BLACK'S LAW DICTIONARY 143 (4th ed. 1951).

29 35 U.S.C. § 112 (1970) provides that each application for a patent must include a written description of the invention and of the manner and purpose of making and using it "in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains . . . to make and use the same . . . ." The specifications must also include one or more claims "particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." Since the claims of the specification determine the metes and bounds of the rights under the patent, a poorly stated claim may provide a valid defense to what would otherwise be an infringement.

30 35 U.S.C. § 101 (1970) defines the four statutory classes of patentable inventions as *process, machine, manufacture,* and *composition of matter.* These classes are all-inclusive with respect to patentable subject matter; and if an invention fails to fall within one of the four classes, it cannot be patented. Seidel gives the following examples of inventions falling outside of the statutory classifications:

> [N]ovel methods of doing business and inventions dependent on mental processes cannot be patented because they are not within any statutory class. The modification of printed matter unaccompanied by a related structural alteration is not patentable for the same reason.

SEIDEL, *supra* note 13, at 10.

has been published, used, or patented elsewhere more than a year previous to the date of the application;[31] (3) whether the applicant is the true and first inventor;[32] (4) whether the invention is novel;[33] and (5) whether the claimed invention meets the standard of "unobviousness."[34]

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[31] 35 U.S.C. § 102(b) (1970) makes an invention ineligible for a patent if it

> was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States.

It should be noted that this section's provisions do not exclude actions of the inventor himself. Thus, an inventor who publishes a description more than one year prior to the date of his application for a patent, or a company who test-markets a new product more than one year before a patent is applied for, will foreclose itself under this section from obtaining a patent. This is fully consistent with the trade concept of patent rights. That is, once the inventor has "let the cat out of the bag" his bargaining position is destroyed and he loses the benefit of the deal (the protection of the patent). Consistent with the principles of fair play typical of our system, the one year grace period is given in such cases. This provision is peculiar to United States law. In virtually all foreign countries, patent protection is forfeited upon *any* prior disclosure of the secret, no matter how soon thereafter a patent is applied for. *See* SEIDEL, *supra* note 13, at 10.

[32] 35 U.S.C. § 102(f) (1970). This section also provides for certain unimportant exceptions to this rule (precisely defined in 35 U.S.C. §§ 117 & 118 (1970)) which are of no general interest and which will not be discussed here.

[33] 35 U.S.C. § 102(a) (1970) provides that a patent shall be granted to an applicant for an item falling within one of the statutory classes unless "the invention was 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 patent . . . ." This paragraph sets the criteria for *novelty, i.e.*, of what the state of knowledge of society must be prior to the discovery of the invention if the alleged innovation is to be considered as indeed new. This is for the obvious reason that something which is already known previously should not be patentable regardless of the good faith of the independent inventor, since such inventor would have no new knowledge to exchange for the grant of exclusivity. It should be noted that the provision is not all inclusive with respect to prior knowledge. It does not exclude from patent those inventions which were previously known or used, but not patented or published, in foreign countries. However, such patent could only be obtained by the original inventor. 35 U.S.C. § 102(f) (1970).

While the determination of whether an invention is truly new (novel) is relatively easy in the trivial cases where the subject matter of the application is simple and well known (such as in the case where someone would want to seek a patent for a table), in the typical case such determination is tedious and time consuming. This determination and the determination of "unobviousness" (*see* note 34 *infra*) are the major stumbling blocks to the issuance of a patent. The more complex the invention, the more difficult the subject matter, the more time consuming the process.

[34] 35 U.S.C. § 103 (1970). The pertinent language of the section is:

> [An invention is unobvious] if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Basically, this is a test for the *degree* of novelty or of innovation over the prior

An applicant whose claims are rejected by the examiner may request a reexamination.[35] After the examiner has finally rejected his claims, the applicant may take an appeal to the Board of Appeals[36]—a tribunal consisting of three of the appointed Examiners-in-Chief.[37] An appeal from an unfavorable decision by the Board of Appeals may be directed either to the Court of Customs and Patent Appeals[38] or to the Federal District Court of the District of Columbia.[39]

However, a clearer understanding of the operation of the present patent system can be obtained by looking beyond the bare statutory form to the actual patent solicitation process.

The first step of patent counsel upon being retained by an inventor wishing to have his invention patented is to conduct a "patentability search."[40] This consists of a preliminary search of Patent Office files to determine the state of the art. This search has two purposes. The first is the elimination of the cost of further solicitation in cases where the "invention" is clearly not novel or is obviously anticipated.[41] Second, the information found in the search will help the attorney draft the application by apprising him, at least generally, of the state of the prior art. It will also se-

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art which an invention must possess before it is regarded as truly new. This is a recognition of the fact that small, obvious alterations of a known process or material generally are not the result of the inventive genius of the person offering the changes but rather are the clear and logical extensions of the existing knowledge. *See* Lorenz v. Woolworth Co., 305 F.2d 102, 103 (2d Cir. 1962). Thus, some measure of creativity beyond the merely obvious is required as a prerequisite to patentability.

35 35 U.S.C. § 132 (1970).

36 35 U.S.C. § 134 (1970).

37 35 U.S.C. § 7 (1970).

38 35 U.S.C. § 141 (1970).

39 35 U.S.C. § 145 (1970). The two options are mutually exclusive: Appeal to the Court of Customs and Patent Appeals waives the right to the civil action (section 141) and vice versa. The scope of each of these procedures is somewhat different. An appeal to the Court of Customs and Patent Appeals is made solely on the evidence already presented to the Patent Office (section 143). No new evidence may be introduced and the decision of the court is on the narrow issue appealed from. Thus, although further actions of the Patent Office must be consistent with the holding of the court (section 144), winning does not guarantee the applicant issuance of the patent since, conceivably, the Patent Office may find some other grounds for rejection not previously considered. In a civil action in federal court, however, new evidence may be introduced and the adjudication may be on any of the claims of the appellant. If the court's holding favors the applicant, the court may compel the Commissioner to issue a patent.

40 Unless the patent attorney lives in the Washington D.C. area, this is usually done by a Washington correspondent attorney.

41 An invention is anticipated if it has been clearly foreshadowed by prior inventions so that it does not really constitute an appreciable improvement over the prior art. *See* note 34 *supra*.

cure the benefit of the technical language adopted by previous patents.[42] The attorney prepares the application,[43] complete with specifications, diagrams, and claims and then files it with the Patent Office. Once filed, it is routed to the group of examiners having charge of the subject matter in question where it is assigned to an individual examiner.

The examiner considers the application when he reaches it in its turn, which generally takes upwards of one year from the date of filing.[44] The examiner first checks the application to assure himself that it meets the statutory requirements. He then makes a search of the state of the art. After this search and a further examination of the application, the examiner almost invariably sends the applicant a rejection.[45] A prior art rejection is generally based upon the closest prior art which the examiner was able to find. The burden of proof is thereby shifted to the applicant to explain why he should be granted a patent in light of the fact that others have come as close to his purported invention as the prior art revealed. The applicant is given up to six months within which to file a response, including justifications for his position. In this manner, the application is batted back and forth between the examiner and the inventor (or his attorney) until the examiner either approves it or sends a final rejection.[46] While this process generally consumes eighteen months to two years, delays of three to five years sometimes occur.[47]

## IV. EFFICIENCY CHECK OF THE PRESENT SYSTEM

In Part II of this Comment, an analysis of the theoretical underpinnings of the patent right revealed that four goals should be maximized by a rational patent system: (1) Speed, (2) security, (3) alienability, and (4) notice.[48] It is thus proper that the present system be evaluated in terms of the degree to which these values are maximized.

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42 It is always wise to use language which was found acceptable in prior patents because the chances of having the patent approved are thereby maximized. *See* SEIDEL, *supra* note 13, at 24.

43 This complex and exacting process is concisely described by SEIDEL, *supra* note 13, at 45.

44 *See* RINES, *supra* note 2, at 15.

45 *See* SEIDEL, *supra* note 13, at 55.

46 In approximately 50 percent of the cases, all of the inventor's claims are disallowed by the examiner. SEIDEL, *supra* note 13, at 60; RINES, *supra* note 2, at 15.

47 *See* S. JONES, THE PATENT OFFICE 39 (1971) [hereinafter cited as JONES]; SEIDEL, *supra* note 13, at 57.

48 *See* text accompanying note 21 *supra*.

### *A. Speed*

Perhaps the most revealing measure of the effectiveness of this aspect of the patent issuing process is reflected in the Patent Commissioner's annual report. At present, it takes an average application twenty-five months from the time of filing to the issuing of a patent.[49] In the case of electronic circuits and other complex inventions, it may take four or five years.[50] This delay in the issuing of a patent is due to the fact that each application must wait its turn behind the backlog of previous applications which currently number some 230,000.[51]

As previously discussed, when the application is finally considered by the examiner, he must make a novelty search. The novelty search is the most time-consuming and exacting part of the entire process. This is so because the examiner is required to compare the subject matter of the application with all prior written knowledge in the area to determine that it is not merely a duplication of a previously known process or would be obvious in light of the prior art. The application must be compared with the appropriate prior art, which must be unearthed from amongst three and one-half million domestic patents and some seven and one-half million foreign patents.[52] A thorough novelty search also includes a search of the worldwide literature on the subject since the subject matter of the application might have been described or anticipated in an obscure periodical, book, or pamphlet. Since this search is undertaken to determine "unobviousness," not merely novelty, the examiner must consider not only the prior patents which somehow vaguely resemble the subject matter of the application, but he must be careful to ascertain whether the claimed invention was not in fact "foreshadowed"[53] in a prior invention. One commentator illustrates the difficulty of this task by giving an example of an application claiming the invention of a new vacuum tube and suggests that the anticipation of this tube might be found tucked away in a prior patent for a radio receiver circuit in which this tube was only a minor component.[54]

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[49] COMMISSIONER OF PATENTS ANNUAL REPORT, FISCAL YEAR 1972, at 1 [hereinafter cited as COMMISSIONER'S REPORT].

[50] JONES, *supra* note 47, at 39.

[51] The exact figure as of June 30, 1972, was 229,185. This included 37,252 patents listed as pre-examination, 151,925 as under examination, 15,778 as post-examination, and 24,230 as in issuing process. COMMISSIONER'S REPORT, *supra* note 49, at 11.

[52] JONES, *supra* note 47, at 45.

[53] "Foreshadowed" is used to indicate failing to meet the "unobviousness" requirement.

[54] RINES, *supra* note 2, at 17.

The work of the Patent Office is carried on by some 2,600 employees[55] some 1,600 of which are in the Office of Patent Examining.[56] Not only is the job of each of these examiners extremely exacting, but it is getting increasingly more difficult. This increased difficulty stems from three sources. First, the number of applications submitted every year is constantly growing.[57] Second, the complexity of the inventions submitted grows from year to year making identification, conceptualization, and comparison with the material on file more and more difficult and time consuming.[58] The third difficulty lies in the fact that the sheer volume of information against which each application must be checked is growing at an increasing rate.[59] Despite an additional effort by the Examining Corps in fiscal 1972, resulting in a disposal of some 3,000 more applications than were received, the backlog of 230,000 was not appreciably affected.[60]

Given these circumstances, it is obvious that the present system is not meeting the speed requirement very well. While the present average waiting period of twenty-five months is an improvement over the average forty-one month period in 1962,[61] it is questionable whether this reduced waiting time is a result of increased efficiency or of a decrease in the quality of the patents issued in light of the fact that the number of applications have increased by over 40 percent over the ten-year period. Also, the twenty-five months is an average figure; several of the patents issued in any one week may be responsive to applications which are ten years old.[62] And, of course, the more complex or subtle the improvement, the longer the process takes.

The detriment to the inventor and to society inherent in this delay stems from two sources. First, during the period that the application is pending, the inventor (or his assignee or licensee) has

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55 COMMISSIONER'S REPORT, *supra* note 49, at 31.

56 *Id.*

57 *See* text accompanying note 68 *infra.*

58 In recent years the annual output of patents has been between 60,000 and 70,000, as compared with 12,931 in 1869. And certainly modern technology—with the transistor, the laser, nuclear fission, and space rocketry—presents much greater difficulties in searching and examining than did the chiefly mechanical inventions of a century ago. A chart displayed at a meeting of Patent Office employees in 1962 showed that in the thirty years since 1932 the average annual number of disposals—allowances or final rejections—per examiner assistant had dropped from 160 to 80. Complexity had cut the output in half. JONES, *supra* note 47, at 41.

59 The number of patents granted yearly almost doubled from 1953 (42,734) to 1972 (83,661). COMMISSIONER'S REPORT, *supra* note 49, at 13.

60 *See* note 51 *supra.*

61 Bryant, *The Patent Mess,* FORTUNE, Sept. 1962, at 111-12 [hereinafter cited as Bryant].

62 JONES, *supra* note 47, at 39.

no cause of action against possible infringers.[63] While it is true that the marketed product may be labeled "patent pending,"[64] and the inventor may eventually sue to enjoin when a patent is granted, a waiting period of from three to five years may cause the patentee effectively to lose control over the market. Furthermore, the market may be spoiled altogether by the entry of products of inferior quality (manufactured with an eye to quick profits rather than to steady growth) which might undermine consumers' confidence in this type of product.[65]

The second detriment caused by the slow patent solicitation process is that during that process neither the inventor nor his investor can be certain of whether the patent rights will be granted or, if granted, the extent thereof. Clearly, this is likely to inhibit investment and early production of the new product. While clear-cut cases involving a relatively small investment and low risk may not be affected greatly, inventions of truly monumental scope whose development requires millions of dollars and a questionable chance of success will suffer by the delay. In such cases, a wise investor will understandably want to "wait and see" before he takes a chance. The obviousness of the problem precludes the necessity for further discussion. Without doubt, one of the clear failures of the present system is the lack of speed with which the patent is granted.

### *B. Security*

Many of the same factors which diminish the patent system's capacity to dispose speedily of a patent application also result in a loss of the security which the system is supposed to provide. As inventions become more complex, thorough novelty examinations require more time; yet because of increased numbers of applications, the time actually spent on each application must necessarily decrease. In light of the staggering difficulties involved in making even the most simple determination with respect to novelty and unobviousness of the invention, the time currently being spent by examiners on each application seems to be totally inadequate. Senator Hart, in introducing his Patent Reform Act of 1973,[66] noted

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[63] They have no cause of action because without the patent, their right of exclusivity is not officially recognized.

[64] 35 U.S.C. § 292 (1970).

[65] *Cf.* Price, *The Role of Patents in the American Enterprise System*, in THE LAW OF CHEMICAL, METALLURGICAL AND PHARMACEUTICAL PATENTS 15, 22 (H. Forman ed. 1967) [hereinafter cited as Price].

[66] *Remarks by Senator Philip A. Hart on Introduction of His Patent Reform Act of 1973*, BNA PAT., TRADEMARK & COPYRIGHT J., March 22, 1973, at A-2.

that an average patent receives about fifteen hours of review.[67] This rather small figure is not surprising when one considers the following facts. In 1968, the total number of applications submitted for consideration was 95,552; the number submitted in 1972 was 109,480—an increase of 14.6 percent.[68] During that same four-year period, however, the average number of examiners employed by the Patent Office decreased from 1599 to 1576.[69]

Since all the fees collected by the Patent Office are turned over to the Treasury[70] and its operating costs are provided by appropriations from Congress, increasing the budget to keep pace with the growing burden is difficult. For example, a request for funding in 1970 to provide forty-two new examiners to keep abreast of the increased workload was turned down.[71] And while the rising complexity of inventions and the heavier workload demand more expertise on the part of the examiners, the Examination Corps has traditionally been plagued by a high turnover rate as examiners are lured away by private enterprise.[72]

Because of the pressures under which the examiners must perform their duties, serious question must be raised concerning the extent to which the patents issued by the Patent Office in fact conform to the statutory requirements. To the extent that a great many do not, the security of *all* patents will be jeopardized because patents generally will be looked upon as unreliable by potential investors and infringers. Once a patent is actually issued, the only way its validity will be tested is in a situation where the patentee wants to enforce his right against an alleged infringer or where someone else claims rights to the same invention under a previously issued patent. In either case litigation ensues.[73] Consequently, the appropriate method to analyze the security of the patent rights presently being issued by the Patent Office is to examine how well they stand up in court.

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[67] It should be noted that these fifteen hours include paperwork, correspondence, and consideration, as well as the novelty search.

[68] *See* PATENT OFFICE, THE STORY OF THE UNITED STATES PATENT OFFICE 37 (1972). *See also* COMMISSIONER'S REPORT, *supra* note 49, at 12.

[69] COMMISSIONER'S REPORT, *supra* note 49, table 22, at 31.

[70] JONES, *supra* note 47, at 57.

[71] *Id.* at 58.

[72] Bryant, *supra* note 61, at 113. However, the turnover rate seems to have declined somewhat in recent years. In the early 1960's it was approximately 20 percent. The present rate is about 8 percent. Letter to author from Richard H. Smith, Patent Office Personnel Staffing Specialist, Sept. 7, 1973, on file in *UCLA Law Review* office.

[73] Patent rights are regarded as personal property (35 U.S.C. § 261 (1970)), and in cases of infringement (section 271) an action may be instituted in federal court (section 281) for damages (section 284) or, at the discretion of the court, injunctive relief (section 283).

It is the general consensus of those involved in patent litigation that patents are invalidated by the courts either far more frequently than they deserve to be,[74] or, in any case, far more frequently than a healthy patent system should permit.[75] That many of the patents which are litigated are indeed invalidated by the courts is unquestionably true. The slightly different emphasis in the two views expressed above reflects the explanations held by two different schools of thought regarding the reason for this high rate of invalidation. One view would blame the courts for applying too harsh a standard and generally having an "anti-patent" attitude.[76] The other view would place the blame on the shoulders of the Patent Office for issuing shoddy patents which do not in fact meet the statutory qualifications. Before one can determine the extent to which either of these views is correct, a look at the applicable statistics is in order.

In the period between 1953 and 1963, of 734 patents adjudicated in all of the federal circuit courts of appeals, 57.4 percent were held to be invalid.[77] In about three out of four cases the invalidation was for lack of invention.[78] A report prepared for the Senate Judiciary Subcommittee on Patents, Trademarks, and Copyrights covering the period between 1948 and 1954 showed that 62.7 percent of the 429 patents involved in litigation were held invalid by the courts of appeals.[79] This report also showed that of the ninety-three patents considered by the Supreme Court from 1925 to 1951, fifty-seven were held invalid.[80] "Senator John L. McClellan, chairman of the subcommittee, remarked in 1969 that he had been rather appalled to learn that every one of the sixteen patents litigated during the previous two years in the Court of Appeals for the Eighth Circuit, which includes his home state of Arkansas, had been declared invalid."[81]

Recent figures are even more discouraging. In a compilation

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74 "The Central District of California has been on a rampage lately in holding patents invalid on grounds often difficult to justify." Horn & Epstein, *The Federal Courts' View of Patents: A Different View*, 55 J. PAT. OFF. SOC'Y 136 (1973) [hereinafter cited as Horn & Epstein]. *See* RINES, *supra* note 2, at 65-66.

75 *See* Horn & Epstein, *supra* note 74. *Cf.* Avery & Ever Ready Label Corp., 104 F. Supp. 913, 915 (D.N.J. 1952).

76 "It is the strong passion in this Court for striking them [patents] down so that the only patent that is valid is one which this Court has not been able to get its hands on." Jungersen v. Ostby & Barton Co., 335 U.S. 560, 572 (1949) (Jackson, J., dissenting).

77 THE ENCYCLOPEDIA OF PATENT PRACTICE AND INVENTION MANAGEMENT (1964), *cited in* JONES, *supra* note 47, at 43.

78 *Id.* "Lack of invention" means lack of novelty or unobviousness.

79 S. REP. No. 1464, 84th Cong., 2d Sess. 4 (1956).

80 JONES, *supra* note 47, at 43.

81 *Id.*

of cases litigated in the courts of appeals between February 21, 1966[82] and December 1, 1968, 72.1 percent were found to have held the patents invalid.[83] Statistics for the overlapping period from February 1966 to September 1970, bear out this trend: in only 29.8 percent of the cases were the patents upheld.[84] Other studies over the same period verify the accuracy of these results.[85] Moreover, a survey undertaken by the author of this Comment indicates that the high invalidation rate has continued unchanged in the last several years. In the four years between 1970 and 1973, of the 153 patents whose validity was considered by the federal courts of appeals, 101 (66 percent) were held invalid either totally or partially.[86]

It should be noted, however, that the percentage of patents upheld varies drastically from court to court. For example, one study[87] shows that of the courts which handled twenty cases or more over the ten year period,[88] percentages of patents upheld range from a low of 10 percent in the Eighth Circuit[89] to a high of 68 percent in the Tenth Circuit.[90] These figures might be somewhat misleading because of the small numbers of cases handled over a fairly long time span. However, in the two circuits in which more than one hundred cases were litigated, the Ninth Circuit and the Seventh Circuit, the difference was quite marked with 26 percent[91] and 53 percent,[92] respectively, of patents upheld. In this context, it has been suggested that perhaps "the cases presented to some courts contain a higher number of invalid patents than do the cases presented to other courts."[93] There seems, how-

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82 This is the date of the Supreme Court's decision in Graham v. John Deere Co., 383 U.S. 1 (1966). *See* note 83 *infra.*

83 Gausewitz, *Brief in Support of Proposed Amendment to Section 103, Title 35, Patents, U.S. Code*, 51 J. PAT. OFF. SOC'Y 290, 333 (1969). It should be noted that the thesis of Mr. Gausewitz' article was that this 14.7 percent rise in the invalidation rate in comparison to the 1953-63 period cited above is due to the fact that the federal judicial circuits had interpreted the Supreme Court's decision in Graham v. John Deere Co., 383 U.S. 1 (1966), as a mandate to invalidate a larger percentage of patents.

84 *See* I. KAYTON, THE CRISIS OF LAW IN POLITICS, PART I, at 5 (1970), *cited in* Horn & Epstein, *supra* note 74, at 288.

85 Horn & Epstein, *supra* note 74, table I, at 146.

86 The survey was conducted by examining patent cases reported in 421 F.2d (1970) to 486 F.2d (1973).

87 Horn & Epstein, *supra* note 74, at 146.

88 This includes all but the D. C. Circuit in which only three cases were litigated, in all of which the patents were invalidated. *Id.*

89 Out of twenty-nine cases litigated, the patents were upheld in three instances. *Id.*

90 Out of twenty-two cases litigated, the patents were upheld in fifteen instances. *Id.*

91 Out of 101 patents litigated, all but twenty-six were voided. *Id.*

92 Out of 129 patents litigated, sixty-nine were upheld. *Id.*

93 *Id.* at 143.

ever, to be no particular reason to make that assumption, and no such reason was offered; thus, it seems safer to assume a fairly random distribution of cases, but differences in the attitudes of the courts. In any case, warranted or not, it is commonly asserted that some courts are "easier" than others with respect to holding patents invalid,[94] and since the courts are the institutions through which patent rights are enforced, the uncertainty created by such beliefs further erodes the value to the inventor of the rights issued to him by the Patent Office. This aspect of the problem becomes quite acute when one takes into consideration the fact that the above figures are only the tip of the iceberg. Beneath lie, in all likelihood, many more patentees who, although having a patent which is truly valid, were fearful of the uncertain outcome of a court battle and thus avoided litigation either by permitting infringers to continue their infringement or by taking an unfavorable settlement. Clearly, any solution which will be of lasting benefit to both inventor and society must take this aspect of the problem into account and somehow compensate for the uncertainty created by the high percentage of patent invalidations and the apparently inconsistent policies of the courts.

Before a solution can be proposed, it is necessary to ascertain which of the two causes is primarily responsible for the high invalidation rate, the Patent Office or the courts. First, some preliminary observations are necessary. The Patent Act provides that "[a] patent shall be presumed valid."[95] While it would initially appear that such a presumption would be extremely beneficial to patentees, the low survival rate of patents in litigation demonstrates that it provides remarkably little protection. This is because the presumption of validity is often easily overcome by the introduction of evidence not considered by the examiner.[96] Next, in determining

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94 Bryant, *supra* note 61, at 113.

95 35 U.S.C. § 282 (1970) places the burden of proof of invalidity of a patent upon the infringer by stating that each claim of a patent shall be presumed valid and that such presumption for every claim shall be independent of the validity of every other claim.

96 As pointed out by Horn & Epstein, *supra* note 74, at 139, the presumption of validity can be easily overcome by bringing up facts not considered by the examiner. (All facts considered by the examiner are noted and kept on file by the Patent Office.) The fact that so many patents are invalidated despite the presumption means that at least in that many cases (probably in more) pertinent facts are brought to light at the trial which were not considered by the examiner. Thus, by the very structure of the Patent Act, it becomes apparent that it is the lack of thoroughness on the part of the examiners which lies at the root of the high invalidation rate. A more thorough examination would dig up all pertinent facts. This would make patents more secure and would greatly eliminate the uncertainty of inconsistent standards applied by the courts. This would be the case because once the presumption of validity is rebutted by the discovery of a pertinent fact which was not originally considered, the fate

the significance of the figures above, it is reasonable to assume that the cases litigated are not a random sampling of the existing patents. They probably do not contain the worst cases (*i.e.*, the most blatantly invalid patents) nor the best cases (*i.e.*, the patents whose validity is quite certain). In such cases the expense involved will undoubtedly preclude litigation. Given the cost of a patent contest, it seems reasonable to assume that the two extreme tails of the distribution will be largely excluded. Given, however, that there is probably some bias in the system of selection, the question is, whom does litigation favor, the patentee or the alleged infringer? Clearly, it is the alleged infringer who is favored by the litigation process. The patentee will suffer direct detriment from having his patent litigated; enforcement of the patent against third parties and control of the product may become quite difficult. On the other hand, the alleged infringer has little to lose by litigating; if he loses he may still be better off than if he had not infringed at all,[97] and the probability that he will actually be worse off is quite small.[98] The patentee, however, puts his patent in jeopardy every time he goes to court, for if he loses, it means his patent will be voided and he thereby risks losing the royalties he may have been collecting from other parties. Thus, while the alleged infringer will generally find litigation rewarding as long as there appears to be some chance of winning, the patentee will generally find litigation threatening so long as there is some significant chance of losing. Given this bias on both sides, it would seem that the patentee will have the incentive to settle unless he believes the patent to be unusally good, while the infringer will be unlikely to

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of the patent lies entirely at the discretion of the court. The court then can apply whatever interpretation of the law it deems correct and the prior decision of the Patent Office becomes irrelevant.

[97] 35 U.S.C. § 284 (1970) provides that the court "shall award the claimant [upon a finding of infringement of his patent] damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer . . . ." If the court limits the payment of damages to reasonable royalties, then the infringer will be no worse off than any other licensee. However, generally the measure of damages is the profit made by the infringer. Zysset v. Popeil Bros., Inc., 318 F.2d 701 (7th Cir.), *cert. denied*, 376 U.S. 913 (1963); Rosen v. Kahlenberg, 337 F. Supp. 1075 (D. Fla. 1970), *rev'd on other grounds*, 474 F.2d 858 (5th Cir. 1973). Even in such cases, however, the infringer will be no worse off than he would have been had he not infringed.

[98] If the market has been spoiled by the infringer and the patentee has sustained consequential damages, courts will occasionally grant additional damages. However, such damages must be proven by the patentee and proof of the existence and measure of such damages is often difficult. *See* Power Specialty Co. v. Connecticut Light & Power., 80 F.2d 874, 878 (2d Cir. 1936). Some courts have even held that *any* damages beyond a reasonable royalty (*e.g.*, and accounting of profits) must be proven by the patentee. *See* Zegers v. Zegers, Inc., 458 F.2d 726, 729 (7th Cir.), *cert. denied*, 409 U.S. 78 (1972).

back out for fear of being sued unless the patent appeared to be quite good. Even in such a case he might find it profitable to litigate simply to gain the time.

The feedback of the system upon itself must also be considered in this respect. Consistent invalidations of patents by the courts with only infrequent validation would tend to make patentees more fearful and infringers more confident. It thus follows that whatever bias exists in the system, it would tend to pull towards excluding more of the weaker patents from litigation and including a greater percentage of strong ones.

Thus, in the light of the "presumption of validity" and the conclusion that the patents litigated are probably of better than average quality, the evidence would tend to lend support to those who believe that the Patent Office is primarily responsible for the large invalidation rate by issuing patents which simply do not meet the standards of the statute.[99] Even though clearly erroneous decisions with respect to patents are occasionally made by the courts,[100] and indeed the high degree of variation from court to court attests to the fact that the judicial attitude is far from uniform, it still appears that the large number of patents which fail to survive litigation is due to the fact that the quality of patents put out by the Patent Office is not very high.[101] The following excerpt from a

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[99] *See* note 96 *supra*.

[100] *E.g.*, Jungersen v. Ostby & Barton Co., 335 U.S. 560 (1949). The Supreme Court in that case invalidated the patent held by Jungersen. The invention covered by the patent dealt with a process for centrifuging wax into a mold for the purpose of reproducing intricate designs in jewelry and like items. The patent was held invalid despite evidence that the invention had made possible results which were impossible before although sought by the whole industry, was the first technique to reproduce accurately intricate kinds of jewelry, and was widely copied by the entire industry once it was made known. The court found this evidence unimpressive and held that "Jungersen's process is nothing more than a refinement of a method known as the 'cire perdue' or 'lost wax' process, which was in use as early as the sixteenth century." *Id.* at 563-64. Pointing out the error of the court's reasoning, Justice Frankfurter, in his dissent, adopted the language of the dissenting opinion of Judge Learned Hand in stating:

> My point is that, if there is a new combination, however trifling the physical change may be, nothing more is required than that, to take the step or steps, added "invention" is needed, and the "invention," whatever else it may be, is within the category of mental activities and of those alone. . . . Indeed it is the very basis of the defense that for years all the elements lay open and available, and that nothing was needed but the paltry modification which has proved so fruitful. . . . What better test of invention can one ask than the detection of that which others had all along had a strong incentive to discover, but had failed to see, though all the while it lay beneath their eyes?

*Id.* at 569-70. The case is criticized extensively in RINES, *supra* note 2, at 64-66.

[101] *See* Weissman, *An Editorial on Patent Invalidity*, 55 J. PAT. OFF. SOC'Y 280 (1973). *See* Horn & Epstein, *supra* note 74, at 139-41. Often patents are held invalid on the basis of prior art that could not be found by any search in the Patent Office, namely the inventor's own prior uses and prior publication

decision by Judge Modarelli of the Federal District Court of New Jersey in which he invalidated a patent summarizes this view:

> The records of the Patent Office indicate that it issued a total of 44,363 patents during the calendar year 1951.[102] It taxes one's credulity that our nation, prodigious as it is, could sire so vast a brood of inventions in one calendar year, and if one can extrapolate from past returns, continue at that rate year after year. The situation is particularly incredible when one considers the stringent test of invention which should be applied.
>
> If the Patent Office used more care in applying the tests of patentability as set by the Supreme Court, much of the flood of patent litigation which flows from the tens of thousands of grants would subside and much of the confusion that results from the government's grant of the privilege with its administrative hand and withdrawal with its judicial hand would be avoided.[103]

This view is clearly consistent with the information considered above concerning the functioning of the Patent Office.

As the statistics and accompanying analysis reveal, the security afforded by the patent right is questionable to say the least. The detriment to both the inventor and consumers caused by this lack of certainty is illustrated by the following example offered by a noted inventor of several important chemical products:

> [One interference proceeding I was involved in concerned a patent on] branched chain polypropylene oxide—polyurethane rubber, widely used for foam rubber products. Shortly after my patent issued, an interference was filed. This seriously interfered with our efforts to enforce our patent and nearly fifty companies sprang up infringing it. After several years of litigation, the interference was settled in our favor. We have, however, effectively lost much of our ability to control the use of the product. In the course of the proceedings a low quality product was made by some producers and, in my opinion, this has definitely been contrary to the interests of the consumer. The net effect of the public interference proceeding after public disclosure of the invention was to provide the public with an inferior product, and to deprive the inventor and investor of a major portion of their reward.[104]

The inventor suggests that a patent whose validity is uncertain, or one which is suspected of interfering with the rights of a previously issued patent, is damaging to the patentee in two respects. First,

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in sales literature. This problem is alleviated by the system proposed in this Comment. *See* text accompanying note 135 *infra*.

102 For fiscal 1972, the number of patents issued was 86,693. COMMISSIONER'S REPORT, *supra* note 49, at 13.

103 Avery v. Ever Ready Label Corp., 104 F. Supp. 913, 915 (D.N.J. 1952).

104 Price, *supra* note 65, at 22.

it may temporarily (or even permanently) compromise his ability to enforce his patent; second, in any case, he loses many of his seventeen years[105] of exclusivity to which he is legally entitled. To fully appreciate the importance of this effect, another look at the nature of the bargain between society and the inventor is in order. By entering into the bargain,[106] the inventor seeks to achieve the security of his exclusivity; in exchange he gives up the chance to own the secret perpetually—he agrees to reveal it with the understanding that it will cease to be his property after a certain number of years. A right of exclusivity, however, which is so insecure that it fails to stand up in well over 50 percent of the cases[107] may not be worth the sacrifice; there may in some cases—for example, where pharmaceuticals are involved—be greater security in maintaining secrecy than in seeking a patent. And, of course, secrecy offers the added advantage of possible unlimited exclusivity. Furthermore, in the case in which the inventor does decide to obtain a patent, an insecure right of exclusivity will be detrimental to the healthy development of the new product since it will not attract the type of long-range, growth-oriented capital which seeks security from possible cheap imitations. That such consequences would be detrimental to both inventor and society was established earlier.[108] It is thus apparent that in this respect the system is not fulfilling the goals which a rational patent system should seek to maximize.

### *C. Notice*

The remaining two goals, notice and alienability, are being achieved to a much greater extent than are the first two. With respect to notice, the Patent Act provides for the printing of pamphlets and other materials,[109] publication of the *Official Gazette of the United States Patent Office*,[110] in which are published descriptions of the patents issued every week, and preparation of an index of patents and patentees.[111] The Act further provides for exchanges of patent specifications and designs with those of foreign countries[112] and for supplying certain libraries in the United States with copies of patents[113] for use by the public.[114] The Act

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105 35 U.S.C. § 154 (1970).
106 *See* notes 11-21 & accompanying text *supra.*
107 *See* text accompanying notes 77-92 *supra.*
108 *See* notes 10-11 & accompanying text *supra.*
109 35 U.S.C. § 11 (1970).
110 *Id.*
111 *Id.*
112 35 U.S.C. § 12 (1970).
113 35 U.S.C. § 13 (1970).
114 Complete sets of patents arranged in numerical order may be found at:

also provides that an infringement action may not be maintained on a product unless it is clearly labeled as a patented invention.[115] Thus, there are ample provisions in the statute which provide for notice to interested individuals concerning which products have been afforded patent protection.

There are, however, some weaknesses in this system. As previously indicated, society's interest in notice is to avoid duplication of effort and to give them the benefit of the new development so that they may build and improve on it.[116] Unfortunately, it is questionable whether any of the publications provided by the Patent Office supply notice of recent scientific developments to the pertinent individuals, *i.e.*, those engaged in invention, research, and development.[117] In addition, all of those publications occur only after the patents are issued. This results in two problems. First, during the invariable delay[118] between the time of invention and the time of issuance of the patent, duplication of effort could easily take place. Second, during this crucial time, *i.e.*, while the patent is under consideration, there is no provision for notice. Thus, the pertinent feedback from the scientific community—information which might be of help in determining whether the invention is indeed novel and which will likely escape the patent examiner—will not be forthcoming. Furthermore, even though the patentee may publish his invention during this waiting period, there is an incentive not to do so. Publication of the idea may apprise competitors of the new development, and they may be tempted to infringe knowing that until the patent is issued there

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University of the State of New York, Dep't. of Education, Albany, N.Y.; Georgia School of Technology, Atlanta, Ga.; Boston Public Library; Grosvenor Library, Buffalo, N.Y.; Chicago Public Library; Cincinnati Public Library; Cleveland Public Library; Ohio State University Library, Columbus, Ohio; Detroit Public Library; Linda Hall Library, Kansas City, Mo.; Los Angeles Public Library; State Historical Society of Wisconsin Library, Madison, Wisconsin; Milwaukee Public Library; Minneapolis Public Library; New York Public Library; Newark, N.J. Public Library; Franklin Institute Library, Philadelphia, Pa.; Carnegie Library of Pittsburgh; Providence Public Library; St. Louis Public Library; and Toledo Public Library. SEIDEL, *supra* note 13, at 20. Since these sets are arranged in numerical order only (rather than by categories and subjects) a search for a particular patent for which one has no number is quite difficult; a state of the art search is quite impossible.

115 35 U.S.C. § 290 (1970).

116 *See* note 21 *supra*.

117 The publications put out by the Patent Office are designed to be read by attorneys and corporate managers interested in the litigation aspects of inventions. The patents are classified by numbers corresponding to their classification in the Patent Office's files and little detailed information is given (such information can however be requested for specific patents). The types of publications which are likely to alert scientists and researchers to a new development in their field of research are the scientific and professional journals pertinent to their art.

118 *See* note 61 & accompanying text *supra*.

will not be a cause of action for infringement available to the patentee. More important, however, a patentee who fears that his invention may not quite meet the standard of novelty will find it beneficial to suppress publication until the patent is actually issued, rather than risk adverse feedback from the scientific community which may cause the patent examiner to disallow the patent.

### D. *Alienability*

Since most inventors will not have the funds to finance the development of their invention, it is important that they be able to mortgage, sell, license, or otherwise dispose of the patent right. As is true with other kinds of property, the more alienable the right is, the greater will be the owner's opportunity to find a suitable arrangement which will maximize profits. From society's point of view, free alienability will assure that the invention will have the best possible opportunity to find financing and will consequently be put on the market quickly.

The present patent system recognizes the importance of alienability for this is the value it most effectively promotes. Patent rights under the present system are considered to be personal property[119] and are freely alienable through licensing, assignment, or mortgage.[120] Therefore, this issue does not require close examination.[121]

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119 35 U.S.C. § 261 (1970).

120 For a concise discussion of the different aspects of licensing, assigning, and mortgaging patent rights see Forman, *Exercise of Rights Under Patents*, in THE LAW OF CHEMICAL, METALLURGICAL AND PHARMACEUTICAL PATENTS 527 (H. Forman ed. 1967).

121 Two special areas, however—antitrust and compulsory licensing—do deserve mention since they represent an erosion of the alienability aspect of patent rights. The antitrust problems stem from the fact that the patent right granted to the inventor is something in the nature of a monopoly for the production of his invention. Thus, there are instances where arrangements made by the inventor with respect to licensing or assignment may result in antitrust suits. To the extent that this constitutes an interference with the inventor's right to dispose of his patent, it is an erosion of the alienability aspect of the right. For a concise discussion of the antitrust problems of patentees, see Forman, *Exercise of Rights Under Patents*, in THE LAW OF CHEMICAL, METALLURGICAL AND PHARMACEUTICAL PATENTS 527, 554-55 (H. Forman ed. 1967).

The other area of disquieting interest with respect to alienability is compulsory licensing. "When a patent owner has been compelled, against his wishes, to license his patent, he has been forced to grant a compulsory license." Sease, *supra* note 12, at 233. Compulsory licensing is quite common throughout the world, and it has been used to a limited extent in this country. Furthermore, there is motion in the Congress exacerbated by pressure from environmental and consumer law groups to increase the use of compulsory licensing in the United States. Since compulsory licensing goes to the very heart of the alienability requirement, such a trend towards proliferation of the compulsory license is most dangerous. For a discussion of compulsory licensing see Sease, *supra* note 12, and Arnold & Jenicke, *Compulsory Licensing Anyone?* 55 J. PAT. OFF. SOC'Y 149 (1973).

Thus, the present system promotes the two goals of notice and alienability to a reasonable, but not to a maximum, degree. The situation is much less encouraging with respect to the two goals of speed and security. Proposals for change are legion.[122] However, before being able to ascertain the validity of any proposed solution, it is necessary to determine the precise causes of the failure of the present system: What must an alternative system avoid duplicating?

## V. FAILURE OF THE PRESENT SYSTEM

There are basically two problems inherent in the present patent issuing system. First is the problem of lack of flexibility. Second, because of its monolithic bureaucratic structure, the operation of the Patent Office tends to maximize bureaucratic values at the expense of the values patents are supposed to maximize.[123]

### *A. Lack of Flexibility*

The present patent system's inability to cope with changing conditions can be seen in several ways. There is, of course, the lack of flexibility inherent in the fact that the Patent Office is supported by congressional appropriations. Appropriations are made annually by a body of men whose concern and information on the subject is limited. Even blatant changes in the operating requirements of the Patent Office are ignored. For example, during a four-year period when the annual rate of applications grew by about 15 percent, requests for funding for new examiners were continually turned down.[124] More subtle changes in the environment in which the office must operate, such as the growth in the

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122 For example, Senator Hart's proposed new patent law includes the following seven changes:

> 1—A Patent Office independent of the Department of Commerce;
> 2—Substitution of "public adversary hearings" for the present ex parte patentability proceedings;
> 3—Use of Public Counsel in the Patent Office to argue for the "public interest" (see 106 PTCJ A-1, D-1);
> 4—Subpoena, investigative, and research powers in the Patent Office to facilitate "independent" determination of patentability;
> 5—Deferred examination for "up to five years, with patent protection lasting 12 years, plus the time lapse from filing to examination";
> 6—Low filing fees, to be increased "only when the patent [is] put to work"; and
> 7—A patentability oath, to the effect that the applicant has brought to the attention of the Patent Office "all material information which would adversely affect the issuance of the patent."

*Remarks by Senator Philip A. Hart on Introduction of His Patent Reform Act of 1973*, BNA PAT., TRADEMARK & COPYRIGHT J., March 22, 1973, at A-3.

123 *See* text accompanying notes 14-18 *supra.*

124 *See* text accompanying notes 68 & 69 *supra.*

complexity of patents, are barely given attention and are not generally reflected in funding decisions.[125]

There are other areas in which lack of flexibility manifests itself. The flexibility necessary to change procedures to fit new requirements and adopt new practices better suited to maximize efficiency is generally lacking in the present monolithic structure of the Patent Office. For example, it is difficult, if not impossible, to experiment with new search procedures without causing disruption of the entire system.[126] Although officials of the Patent Office may indeed be doing their best to improve the situation, the sheer weight of the system militates against change. The following remarks in the 1972 *Commissioner's Report* are of interest in showing how change must often be deferred in favor of merely keeping the current system from breaking down:

> Considerable effort was devoted to search systems development during the past year. However, a decision has been made to reprogram the resources allocated to the expansion of the mechanized classification system in order to refine and update the manual classification system [*i.e.*, the existing system]. This decision was made in light of the moderate advances made in the area of automated classification systems and the recognized need to rapidly update the existing manual classification system . . . .[127]

Being part of the federal bureaucracy, as well as being tied to the federal pay scale, also makes it difficult to shift personnel quickly and efficiently. For example, if more experienced chemists are necessary in a given period of time, it is difficult to attract them quickly by offering premium wage rates. Nor is it possible to retain expert employees who have received better offers elsewhere since budgetary problems preclude the Patent Office from offering them more attractive salaries.

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125 *See* text accompanying note 71 *supra*.

126 This is the case because, in order to experiment, the Patent Office would either have to switch its entire mode of operation back and forth several times until it found an optimal method (given the present state of delay such shifting would be most disruptive since all employees would have to learn and unlearn several procedures, which would result in greater inefficiency and delay), or it would mean that different parts of the Patent Office would have to adopt different procedures and test them against each other (in which case the internal inconsistency would be such a disruptive factor that none of the procedures tested would really have an adequate chance to prove themselves under normal conditions). *See* text accompanying note 127 *infra*, for an illustration of the problems involved in changing procedures in a monolithic organization such as the Patent Office. Basically, the problem can be boiled down to the fact that the Patent Office is the only institution that does extensive novelty searches on a regular basis, and, therefore, it must plough out its own new techniques and cannot look at what others in the field are doing as can large industrial concerns. Unfortunately, the structure of the Patent Office is such that such experimentation is extremely difficult.

127 COMMISSIONER'S REPORT, *supra* note 49, at 5.

In general, the problem with the present system of issuing patents is that, in terms of flexibility, it is simply too big and too clumsy to respond adequately to the phenomenal expansion of technology of recent years.

### *B. Bureaucratic Values*

The following excerpt from an article in the *Journal of the Patent Office Society* gives an insight into the problem involved:

> The Patent Office system encourages the granting of patents even under circumstances where the expert Examiner does not believe invention exists. The Patent Examiner is and for many years has been rated based upon "dispositions", i.e., cases of which he has disposed; generally this yardstick of his performance does not take into consideration factors such as the time which the Examiner has spent, nor the correctness of his decisions in a given case. Thus in face of an obviously persistent, albeit "wrong" applicant seeking a patent, a Patent Examiner is in effect, encouraged to allow a patent, rather than to finally reject it. The allowance results in a "disposition"; any other course of action results in an appeal—not a disposition. In the case of an appeal, the Examiner, in response to the applicant's brief, is required to file an Examiner's Answer—often a time-consuming task—and since it is a non-"disposition", in his view, a thankless task. Is it any wonder that many Examiners adopt the attitude of "not bucking the system"; if "invention" or lack of it is a matter of *some* judgment (and surely all would agree that it is), then why not in a close case, (or one somewhat close) give the applicant the benefit of the doubt, get a disposition by allowance and go on to the next case, thus increasing the Examiner's production on performance.[128]

The problem is that even though some of the higher echelon (appointed) officials of the Patent Office are both well meaning and competent, the structure as a whole acts as a bureaucracy. There is simply no way in which an employee (or even the office as a whole) will feel the repercussions of a wrong decision. Though some examiners may be quite conscientious about their duties, given the limitations of time[129] and grossly inadequate facilities,[130] it may not be possible to do a truly thorough job and still keep the level of "dispositions" acceptably high. Nor can an examiner really be sure that the standard he is applying is adequate since there is no feedback to tell him how many of the decisions he has made have been good and how many have not.

It is apparent from the above discussion that any solution

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128 Horn & Epstein, *supra* note 74, at 139-46.

129 *See* notes 66-67 & accompanying text *supra.*

130 Bryant, *supra* note 61, at 235.

which has any hope of permanent success must be one which strikes at the very essence of the problems of the present system: inflexibility and emphasis on bureaucratic values. The proposed solution which follows is designed to be responsive to these needs.

## VI. A FREE ENTERPRISE SOLUTION

### *A. Some Preliminary Considerations*

The conclusion to be drawn from the previous discussion is that the Patent Office is not adequately fulfilling its function. Analogizing the Office to industry, one would say that it is (a) the producer of a service which is in great demand, (b) it is slow, inefficient, and unreliable, and (c) the service it offers is of such shoddy quality that it is of no value 50 percent of the time. Carrying the industrial analogy further, it becomes apparent that in a free enterprise system, a company in a similar situation would quickly be driven out of business by competition. The only manner in which such an enterprise could survive despite its inefficiency is that it has a monopoly—a direct means of excluding prospective competitors from the market—and a service which is so specialized that it has no effective substitutes. That is, since it is run by the government, the Patent Office simply cannot (as it presently stands) have competition. And, although some inventors are finding trade secrets to be a more attractive substitute, this alternative clearly has severe limitations.[131] The present system therefore survives. It is, of course, unascertainable how many would-be clients (inventors) are discouraged after one or two encounters with the Patent Office and choose to abandon work on other projects.

It is submitted that the way to circumvent the difficulties of the present system is to put the business of the Patent Office into the hands of free enterprise. But, one might ask, is this possible? Is not the issuance of patents an inherently governmental function? The answer to this narrow question is, of course, yes. Insofar as the function involves determining the scope of a right and its enforcement, it is clearly a governmental function. Since government has a monopoly on legal enforcement, these functions cannot be delegated. However, determination of the scope of the patent right is not the bulk of the work done by the Patent Office. The greatest amount of time is spent on making novelty searches—examining hundreds of patents in thousands of categories, checking the current literature, and probing for possible hints in prior patents for possible anticipation. There is nothing inherently governmental in this activity. It merely happens that this is the manner

[131] *See* notes 10-11 *supra.*

in which the system was established in 1836. Novelty searches have since without question been considered an integral and necessary part of Patent Office activity.

However, there is nothing inevitable about the present system. A look to an analogous situation in the area of real property transactions will show the weakness of this position. It is generally recognized that the records kept by title insurance companies (at least in the large, highly developed, densely populated counties) are far superior to the records kept by the recorder's office.[132] The companies' records are much more up to date, and retrieval methods are mechanized and computerized. In a densely populated county such as Los Angeles, it is accepted without question that a viable recording system simply could not exist under present circumstances without the records kept by title insurance companies. It is clear that the reason the companies are engaged in keeping these elaborate and efficient records is not to further the public good or to benefit society by performing a necessary function, but rather economic self-interest. A company which is about to issue an insurance policy on the title to a piece of land simply cannot afford to rely on a system which is less effective than the best available in keeping all records perfectly up to date. There is nothing fundamentally different about the patent system; the same principles can be applied.

It may initially appear that the problems of title insurance companies are much more limited than would be those faced by analogous companies involved in patent searching. For example, title insurance records are generally limited to property situated in a particular city or county, while patents are nationwide in scope. However, the distinction is really inconsequential. Just as land is divided into small and fairly manageable subdivisions along geographic lines to make record keeping easy, so inventions can be divided along conceptual lines (*e.g.*, chemical, mechanical, electronic), and any one company could specialize in one or several fields and would not be required to keep records in any of the others.

### *B. The Proposal*

This Comment proposes that the following five measures be undertaken to change the present patent system:

(1) The novelty search by the Patent Office should be abolished.

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[132] Interview with Richard C. Maxwell, Professor of Law, UCLA School of Law, in Los Angeles, Aug. 23, 1973.

(2) A process for licensing novelty search agents should be established. Licenses should be given freely to all those who (a) show proof of a certain level of proficiency in making the required searches and (b) have not had such license revoked in the past for misconduct (in particular, fraudulent failure to disclose pertinent results of a novelty search).

(3) All inventor-applicants should be required to submit with their application a "state of the art" abstract prepared and certified by a licensed search agent.

(4) The present patent examiner should be replaced with a patent adjudicator whose function would be of a primarily quasi-judicial nature—to determine the merits of the invention in light of the abstract submitted.

(5) There should be a statutory creation of an insurable interest in patent rights.

### C. *How the Proposed System Would Function*

An individual[133] who has made a discovery which he considers to be a breakthrough unanticipated by the prior art in the field (electronics, for example) would first contact a patent attorney who in turn would contact a firm engaged in preparing novelty abstracts (and probably specializing in that particular field). This firm would then make a quick survey of the field (similar to the patentability search discussed earlier[134]). After determining that the invention is not clearly anticipated or otherwise invalid, the patent attorney would file notice of intention to seek a patent with the Patent Office.

The next step would be to commission the patent insurance company to make a thorough "state of the art search." This search would serve two purposes. First, it would be necessary for preparing an abstract to enclose with the patent application. Second, the information would be necessary to the insurance company in predicting the validity of a patent issued on the invention if challenged in court.

The search made by the patent insurance company would be different in two respects from the one presently being made by patent examiners. First, depending on how important the invention, how eager the client, and how much money he is willing to spend, the speed of the search could be varied. For example, a search of a certain field may take (purely as a hypothetical figure) thirty

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133 The assumption of an individual inventor is for the sake of convenience. Conceptually, it makes no difference whether this is an individual or a corporation.

134 *See* note 40 & accompanying text *supra*.

days in the hands of one search agent. If the client is in no particular hurry, a discount may be offered and the search given low priority in which case it may take perhaps two or three months. If the client is in a hurry, however, a whole battery of examiners may be able to get the job done in a week or ten days if a high enough premium is paid.

The second way in which this search would be different from the present one is that the search would not be limited to information available in files, books, and records of the Patent Office. The people with the most knowledge of the field in question and of how the purported invention fits into the existing art would be the inventor himself[135] and the people he works with. A competent novelty search agent would therefore not hesitate to interview these people, assure himself that in fact it was the applicant (and not his assistant) who made the discovery, find out in which periodicals inventors in this particular branch of the art most frequently publish their findings, and generally make sure that he gets the real inside information so far as this is possible.

Upon completion of the abstract (signed by the agent or agents who prepared it) a copy is given to the patent attorney along with notice of whether the company intends to issue a policy on the invention should it be approved for patent. While some inventors may go ahead with the application despite having been denied a policy by the insurance company, most competent attorneys would likely advise against such a move and most corporate clients with large investments at stake would likely send the invention back to the drawing board to see if it can be brought up to par. Whether or not the company issues a policy on the invention, the company would send, upon request of the inventor, a copy of the abstract to the patent adjudicator. At the same time the attorney would submit the completed application along with specifications and drawings.

The patent adjudicator would have the task of deciding whether the application is worthy of a patent in light of the information provided in the abstract. There are two assurances the

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135 This fact is recognized by Senator Hart in his proposal (*see* note 122 *supra*). Point seven of the proposal includes provisions for a "patentability oath" to the effect that the applicant has revealed all the information he has which might be detrimental to his application. This concept would likely be adopted automatically by the system proposed by this Comment, by the fact that the insurance companies would probably insist on such a declaration as a prerequisite to the issuing of a policy. This would be analogous to present practices of asking for a health declaration as a prerequisite to issuance of life insurance and of release of driver's records in the case of automobile insurance policies.

examiner has that the information is accurate and complete.[136] First, with respect to thoroughness, since the decision of whether or not to insure is based upon the abstract, it is clearly in the insurance company's interest to make the most thorough search possible. Second, with respect to possible frauds, there is double protection: The insurance company has an obvious economic interest in guarding against fraud, and the search agent who signs the abstract takes responsibility which may result in suspension of his license and incurring possible criminal penalties if he prepares a fraudulent abstract.

With respect to those inventions that have been issued insurance by the patent search company who prepared the abstract, the job of the examiner would (and should) be largely perfunctory. In order to take full advantage of the resources and the expertise of the company, the adjudicator should generally adopt the company's decision with respect to the validity of the patent applied for on the theory that if the company is willing to issue insurance and risk large sums of money in litigation costs and damages, the patent must indeed be good. With respect to such applications the adjudicator's job would be largely clerical (making sure that the application is complete and the fees have been paid, for example), and perhaps he would make occasional spot-checks in cases where the insurance is issued by companies that are new and may not yet have acquired expertise.

The adjudicator's real duties would be with respect to those applications which do not have insurance, either because the applicant did not ask for it or because the company decided it would not grant it. In those cases, the adjudicator would be required to make an independent decision with respect to the application. Those denied insurance will now be given an opportunity to argue the validity of their application before the examiner. More importantly, if, as will likely be true in many cases, the adjudicator concurs in the company's opinion and refuses a patent, this will provide a basis for an appeal through the Patent Office and eventually to the courts.[137]

In those cases where the company decides to issue insurance, the policy goes into effect upon the issuance of the patent. The policy would insure against losses incurred from a possible in-

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136 It should be noted that it makes no difference whether a policy is actually offered or if offered whether it is bought. Since the research is done *before* a decision on issuance is made, and the company will always try to maximize the amount of information it compiles in the abstract so that it will be able to make a wise decision, the examiner will always be assured that the abstract before him is the product of the company's best possible efforts.

137 *See* text accompanying notes 36-39 *supra.*

validation of the patent in court. Thus, both in the case that a prior patent holder sues the policy holder alleging infringement and in the case that the policy holder himself sues for infringement, the insurance company would pay up to the limits of its contractual liability the costs of investment lost due to nullification of the patent.

### *D. Advantages of the Proposed System*

The proposed system strikes at the very heart of the disadvantages of the present system. The two deficiencies of the present system—lack of flexibility and emphasis on bureaucratic values—are eliminated. The system will be flexible since it will consist of many independent units. As the burden increases so will the capacity, both in size and in efficiency of the methods used. This is so because the amorphous structure of the system will respond easily to fluctuations in demand. Thus, as the workload increases, more companies can be formed or existing companies can expand to take up the new business.

Another advantage of fragmentation is that many smaller units can experiment with new organizational and information retrieval techniques much more easily than can a single monolithic unit.[138] Experimentation and competition between the different methods will insure that the most efficient system will be adopted.

Competition will also take care of the second difficulty inherent in the present system, lack of emphasis on system-oriented values. The quickest, most thorough, most experienced firms will prosper at the expense of those firms that cannot provide as good a service.

From the patentee's point of view, the better search prior to the issuance of a patent plus the availability of insurance will protect the investment he is about to make in the development and marketing of the product. The existence of insurance will further relieve some of the uncertainty presently existing as a result of the courts' somewhat erratic behavior. The introduction of competition to the system and the availability of several different companies to choose from means that, when filing an application for a patent, there will not be a backlog of several hundred thousand behind which the application must wait its turn. Furthermore, the fact that the speed of the novelty search may be varied can provide each inventor with the optimal speed for the patenting of his discovery.

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138 With several smaller systems the problems discussed in note 126 *supra* would be avoided. Each of the several companies could experiment with a different process and learn from each other's mistakes and thereby assure that the best system will be adopted in the long run.

An added advantage is that the existence of a unified interest (the insurance companies) in keeping patent rights inviolate will put some pressure on Congress to lessen the antitrust and compulsory licensing threats to the rights of the patentee.[139]

Checking the proposed system against the four values, it can be seen that the issuance of patents based upon more complete information and protected by insurance will provide optimal security for the patentee. Speed will be maximized by both competition and automatic enlargement of the system as the workload grows. With increased speed, publication will be earlier, thus increasing notice. Also the second aspect of notice, feedback from the scientific community while the novelty search is going on, will be taken care of to the greatest possible extent by the field investigator of the insurance company. Alienability will not be directly affected, but indirectly there will be a force introduced into the political and economic system whose business it will be to keep patents safe from attack.[140]

It should be noted that the proposed system provides a permanent solution. It is self-implementing once the original steps are taken and if left alone will invariably find its own optimum level of efficiency. The system will work automatically to keep pace with the rate of discoveries and may do so more cheaply in the long run than the present system due to a decrease both in litigation expenses and in invalidations of existing patents.[141] In addition, the proposed system is consistent with the principles of free enterprise. And this is as it should be, for patent rights provide one of the mainstays for that system.

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139 *See* note 121 *supra.*

140 This will be done by influencing legislation through lobbying and similar activities.

141 An objection that may be raised against the proposed system is that the cost to the inventor of getting a patent will be greatly increased and that perhaps as a result many meritorious inventions will remain unpatented because small inventors would not be able to afford the cost. The answer to this objection is two-fold. First, that cost which would be borne by the inventor under the proposed system is a cost that is presently being borne by the society as a whole. Since the search is being done by the Patent Office at a loss, the rest of the taxpayers are currently giving an indirect subsidy to inventors. Given that the inventor will be the primary beneficiary of the invention if it is patented and successful, it is not unjustified to ask him to bear the full cost of getting a patent. Moreover, the poor inventor who cannot afford to pay the money out of his own pocket can turn to industry or to invention development companies, and by persuading them of the viability of the invention secure financing for the application and perhaps even for later development. This is no different from the situation under the present system where a poor inventor must, upon receiving his patent, persuade others of its value in order to get development financing—in either case the inventor will have to persuade investors of the likelihood of profit before the invention can be put on the market.

## VII. CONCLUSION

It is clear from the evidence considered that the present patent system is not fulfilling its function in the best manner possible. A Patent Act that has survived since before the industrial revolution without major change, a Patent Office that is understaffed, overworked, and inflexible in its procedures, and a sharp increase in the rate and complexity of inventions in recent years are all factors that have contributed to this situation. Change is necessary if the relationship between inventor and society is to be fostered to assure the maximum benefits to both sides.

This Comment has sought to analyze the inventor-society relationship and to determine what factors are relevant in making it function smoothly. By isolating these factors, a theoretical basis was created upon which a proposal for a new system was built. This proposed system was designed to avoid the difficulties of the present one and would, if implemented, provide the best possible environment for the proliferation of inventions.

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