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## CHAPTER 7

### THE MODERNIZATION OF PATENT SYSTEMS

The possible effect upon our system of current planning for a common European patent is discussed in this chapter, with several of the author's views for modernizing and improving the American patent system and its administration.

At a time when most of the thinking at the United States Patent Office appears directed toward such matters as obtaining a new building, speeding up the government's patent examination procedures, streamlining interference and other processes within the Office, and providing more incentive to skilled people to wish for Patent Office careers, our European friends are engaged in a far more basic modernization program. More important than the details of the programs under consideration in the United States and abroad is the spirit of enthusiasm and vigor of the European experiment. This spirit stems from a firm conviction that the state benefits when individuals are encouraged and their proprietary rights are protected – concepts that, at least formerly, were an integral part of American pride and tradition. Serious revision of the basic concepts of a patent system to suit modern times cannot take place in the climate that we have now created for ourselves; where, indeed, there are some who apparently are no longer sure that reward to the individual is consistent with the so-called “public interest”<sup>1</sup>.

Let us explore, briefly, the rather radical ideas in Western Europe with regard to the economic and social needs of a mid-twentieth-century patent system. In doing this, we must bear in mind that the great postwar impetus is still at work in an awakened European Economic Community which filings aside the petty roadblocks of mere nationalism and refuses to retain long-established systems of a bygone era simply because they have been so long established.

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<sup>1</sup>A measure of this spirit seems now to have been kindled by S. Herbert Hollomon, Assistant Secretary of Commerce for Science and Technology, who has established a patent panel of the Commerce Technical Advisory Board to delve into these matters with a sense of urgency. Also, Dr. Donald A. Schon, head of the Commerce Department, Office of Technical Services, and Professor Charles Stark Draper, Chairman of the National Inventors Council, are instituting studies.

### 7.1 Present Proposals for a Common European Patent and Judiciary

In an effort to meet the needs of a modern Europe, and despite the wide range of differences in national laws and requirements for the issuance of patents in Belgium, France, Holland, Italy, Luxembourg, and West Germany, these countries have banded together with the exciting purpose of trying to create a single European patent. Appreciative of the limitations upon the courts of law in the growing maze of technology, but also cognizant of the necessity for the safeguards of the judicial process, these people propose a single European Patent Office which will perform both administrative patent examining and judicial functions, complementing the processes of the national courts of law of the individual countries.

Preliminary plans <sup>2</sup> proposed by representatives of the respective governments, and made more firm at the Berlin 1963 summer conference, are somewhat as follows:

An inventor may file for a single, common European patent either in the European Patent Office directly or in any one of the national patent offices for forwarding to the European Patent Office. The international group of examiners staffing this latter office, under financial support from all the member countries, first checks the formal sufficiency of the application papers and then forwards the application to an International Patent Institute, probably at the Hague, where an international group of trained technical officers will make a novelty search and report on the closest prior art that can be found. No opinion will be expressed, however, as to whether the claimed invention is or is not actually a patentable invention in the light of this prior art. On the contrary, one of the purposes of this novelty search is to enable the patent applicant himself to decide whether, in the light of the prior art, he actually has a patentable invention and should maintain his application or whether his claims should be modified to show more clearly how his inventive step is an advance over what has been done before.

The European Patent office will then, as a matter of course, publish the application as an initial grant, including the original or modified claims of the applicant together with the novelty search report of the International Patent Institute. The public thus will know what the applicant is claiming and what prior art the international search has developed, and any interested member of the public can make his own evaluation of such claim.

This published patent will automatically be treated as abandoned after five years from publication unless either the applicant or a member of the public files a petition for a final examination and determination of the validity of the patent by the European Patent Office. Such a petition must be published so that anyone interested in this patent-claim assertion may, within a limited time, join in the petition and inform the European Patent Office of any prior art or other reasons for invalidity of which they are aware.

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<sup>2</sup>Committee of National Institutes of Patent Agents, "European Convention for facilitating the filing of applications for patents in respect of the same invention in several States and the examination thereof," Unpublished draft, June 14, 1962.

Thus, before making a final determination as to whether the initial scheme is or is not patentable, the European Patent Office examiners have before them not only the results of the search of the International Patent Institute but also all the prior-art references which the technical community of all the countries has been able to assemble. Prosecution of the claims will then place much as in the West German, Dutch, or American systems, with rejections and amendments, and appeal to a special board of the European Patent Office for a final decision.

One reason for this two-stage procedure in the granting of the European patent is the fact that the average life span of patents in countries such as Western Germany (voluntarily cut short by the failure to pay the successively increasing renewal taxes) is about seven years. And the period elapsing between the original filing of an application for a common European patent and the five-year period for final examination is expected to approximate the same length of time. At the end of that time, about half the patents will probably be abandoned, and the European Patent Office and the national courts will not be cluttered with litigation over uneconomic or unimportant patents. A party being threatened by, or concerned with, an initial or preliminary patent grant, moreover, does not have to wait for the patentee to descend upon him in order to obtain a binding determination of patent validity.

Upon election to file for a common European patent, the applicant will be barred from obtaining an individual national patent in any of the separate countries. However, for the initial phases of this proposed program, the right to file for individual national patents is retained.

In the event that a suit for patent infringement is brought in any of the national courts, after the publication of the initial patent by the European Patent Office but prior to final examination and final patent grant, the national courts, with power to decide infringement only and not validity, must suspend proceedings to enable the European Patent Office to make its final examination and rule on validity. Should the European Patent Office decide that there is no invention or that for some other reason the initial patent is invalid and no final patent of any kind can be granted, appeal may be made to a board of appeals of the European Patent Office, whose decision is final.

Even after the final granting of a patent, and at any time during its life, the public, and not merely an infringer, has the right to bring a suit before a special board of the European Patent Office for a declaration that the patent is invalid. And appeal to a European Patent Court staffed by internationally selected judges is available.

Once a final patent has been granted, however, the national courts may proceed with suits to determine whether the patent is infringed. If doubt as to validity is shown before such courts and if the validity board of the European Patent Office of the European Patent Court is also to consider the matter, the national courts may, if they so desire, postpone infringement decisions until the final decision on validity has been rendered by the European Patent Court. In such infringement actions, the national courts may request the European Patent Office to act as an expert as to technical matters, including the scope of protection intended for a patent, or they may request the European Patent

Court to interpret doubtful provisions of European patent law. The decision of the courts as to infringement may be appealed to the national appellate courts, as in present-day fashion, but the final appeal will not be to the supreme courts of the individual countries but to the European Patent Court.

Instead of waiting to be sued for infringement in a national court, moreover, any person who is concerned over whether or not he may be infringing a patent may ask the before-mentioned special board of the European Patent Office to declare whether his product or process is an infringement. The resulting determination may be appealed to the same court, but a decision of the European Patent Court as to infringement is to be binding upon the national courts. Thus national judicial sovereignty is being radically curtailed in an effort to establish common standards of validity and infringement and uniformity of law under the supreme guidance of the European Patent Court.

More than this, litigation in the national courts and prosecution of economically useless patents in the European Patent Office are to be minimized. Searches, examination, validity, and infringement proceedings are to be streamlined and standardized, as they must be if the present terrible waste of time, effort, and skilled manpower (involved in separate national patents, competing patent offices, separate judicial procedures, and varying standards) is to be eliminated.

These radical and far-reaching modernizing steps, in the race for survival with an aggressive, enthusiastic, and hostile competitive society<sup>3</sup>, are being considered abroad at a time when, in the United States, there is more concern with putting the law back to where it was forty years ago; with having a spanking new building for the Patent Office; and with speeding up the searching and cutting short negotiations between attorneys and the Patent Office. Indeed, we seem to consider ourselves clever enough to produce the "valid" final patent in shorter and shorter time, despite the increasing problems involved: obtaining and holding competent career examiners and the growing complexity of technology. This is how we have always done it, and apparently all that is needed to introduce time-study and efficiency "experts" and computers to speed up the process.

A lesson for present-day American from its elders can be gleaned: namely to concern ourselves with substance, not form, and not to cling to procedures and format which have proved themselves long out-dated economically, socially, and politically<sup>4</sup>.

The economic and political effect upon the United States of real progress in the *competent* administration and *sympathetic* protection of industrial property in Europe is another issue with which apparently few, if any, in government are presently concerned. If America is to be a world "leader" forging "new frontiers" in fact, and not merely in fine words, platitudes, and wishful thinking, it must shore up the sagging foundations of our free-enterprise capitalistic society before

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<sup>3</sup>Edward E. McGrath, "How Should the U.S. React to Reds 'Man-in-Space Feat'," Boston Globe, April 13, 1961.

<sup>4</sup>Report No. 148 of the Senate Committee on the Judiciary, 87th Congress, 2d Session (1962), p. 12: "The very survival of the patent system, as it now exists, is at stake."

adding floors to the superstructure.

What are the reasons behind our out-dated Patent Office procedures and the general hostility or lack of interest and a sympathy for industrial property protection from top to bottom of our judiciary? It is no accident that both Republicans and Democratic judges are less than cordial to patents and complaints as to unfair competition predicted upon proprietary rights. It is no accident that vast groups of our industrial society have become less than enthusiastic about patents and about fighting to maintain their proprietary rights. It is no accident that our engineering community is far from "on fire" and, like many other groups in our society, looks for security rather than for the excitement and adventure of its work with dreams of giant rewards.

By recent interviews of applied scientists and engineers in university, government, large corporation, and small company electronics laboratories in greater Boston, interviews conducted by my classes in invention, patent, and innovation at the Massachusetts Institute of Technology and analyzed by the Academy of Applied Sciences, a shocking apathy was uncovered. Those working under government sponsorship or employment felt no personal incentive from the patent system and, indeed, showed no concern for patents whatsoever since the latter would be the property of the government. In many cases, they reported that the lack of recognition of their personal efforts, coupled with the great difficulty in persuading superiors to try out something new or radically different, was responsible for their attitude of doing a day's work for a day's pay.

In one major space laboratory, it was frankly conceded that if the germ of a really novel concept came to mind, it would be brought to completion in other commercial company endeavors outside the NASA program, because of the grab-all patent policy of the government. This puts a premium on solving NASA's problems safely and regularly. Three patents applications, to be sure, have been filed in the past four years out of the millions of dollars of space research conducted by this laboratory; but the commercial section of the same company has filed hundreds of such applications during the same period.

Much as the government patent policies have quashed creative ingenuity, so the company employment agreements have reduced the interest of the engineers in inventing. Two principal reasons for this lack of incentive were advanced: first, the companies resist really new ideas; and second, the reward and recognition procedures are actually not tied to *creativity*. Most of the commercial company engineers and applied scientists who were interviewed stated that they presently had some rather new ideas that they felt would be useful as products for their companies. But they were not even suggesting them because of the difficulty and even political danger in getting new ideas considered fairly and accepted. Possible inventions in fields outside their specific employment had also occurred to many of those interviewed; but the universal explanations for doing nothing about them were either that the company employment agreement made them the employer's property, or that the time, expense, and risks involved in our present patent system were formidable. Many felt, moreover, that any recognition would go to others higher up on the company ladder. Are industry and government managers awake to this lack of morale; or don't they

realize its effect? The prevalent American management concept of equality of talent and interchangeability of applied scientists and engineers saps at the roots of creative accomplishment. Flowers will not bloom without roots! <sup>5</sup>.

## 7.2 Some Different Ideas for Revision of the American Patent System

Looking, then, at the foundation of our American patent system, I question whether it is suited to hold up the social order of *today* and *tomorrow*. The system cannot but crumble if it rests upon fundamental concepts not in tune with modern trends. It is of no use to long for “the good old days,” because most Americans, rightly or wrongly, have unmistakably shown in modern elections that they wish to adopt a different kind of social structure. So, unless the purposes and effect of the patent system are matched to modern trends, the good that resides, even in an out-dated patent system may disappear.

We should question, for example, whether it is sensible, in all instances, to give to certain large corporations the same amount of power of exclusion in a patent that is given into smaller hands for the establishment of new businesses or growth. Is it not perhaps a terrible waste to have one branch of government (the Patent Office) grant a right after years of consideration and then to have another branch (the Antitrust division of the Department of Justice) limit or abolish such right? Isn't this particularly true where the trend of Supreme Court thinking is directed, not toward real antitrust violations, but to the possession of instruments that, if improperly used, could conceivably result in violations <sup>6</sup>?

We should question whether, as the country proceeds unmistakably along the path of more and more federal supervision, in accordance with the will of the majority, the same social purpose is served by our present type of patents for inventions in the highly sensitive field of public health as exists in other less sensitive fields of industrial products. The must be examined because, though the late Senator Estes Kefauver was unsuccessful in his attack upon pharmaceutical patents in 1962, the handwriting is on the wall to be read <sup>7</sup>.

The engineering, scientific, legal, and business communities of the nation should *now*, before it is too late, explore policies that can preserve the important stimuli of the patent system even under conditions where the public is highly sensitive. We who are generally friendly to the patent system shall have performed a disservice to future generations if we refuse to examine our present form of patent system to see if it is any longer as meaningful and proper in our present society as it was in the early part of this century. We shall have performed a further disservice if we do not plan to integrate our patent system with that of the European Economic Community.

With regard to the procedures, indeed, it seems that our emphasis ought to be making the path of the *inventor* easier in the Patent Office, rather than

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<sup>5</sup>Robert H. Rines, “Current Problems in the Protection of Creative Ideas and Writings,” *IEEE International Convention Record*, Part 10 (1963).

<sup>6</sup>*United States v. Dupont & Co.*, 366 U.S. 316 (1961).

<sup>7</sup>*Science*, Vol. 134, pp. 89-90 (July 19, 1961).

approaching the problem solely from the present point of view of making it easier and quicker for the government to speed up its consideration of patents. Neither the Patent Office examiners nor any other group of individuals can do creative work in an atmosphere of speed. In fact, the examiners should better be given *more* time for thorough consideration of the matter of patentability and the application of the judicial tests of obviousness and other standards of invention, if judges are to be asked to give great weight to the examiners' conclusions. Speed is not, and never has been, a substitute for thorough work; and so we must decide whether the issuing of good patents is more or less important than the prompt issuing of large numbers of possibly inferior patents. This, again, is the question: Is America interested in substance or in mere form?

Let us consider, therefore, another approach predicated upon the hypothesis that a patent examiner is not just a servant of the public at large, but under the very constitutional provisions whereby the patent system exists also has a responsibility to the individual inventor. He should not engage merely in the destructive process of rejection, but should speed the process of patent examination through active assistance to inventors, in order that patents be issued promptly when invention appears to be present. It should be as important for an examiner to feel content when assisting an inventor in obtaining a patent with claims of proper scope as it is now for many examiners when sustained by the Board of Appeals in a rejection.

To this end, a reformulation of present Patent Office practice can be made by administrative order of the commissioner which will take into account the long-overlooked Patent Office responsibility to the inventor. Specifically, when an examiner is convinced that an invention is present but is dissatisfied with the claims of the applicant, he should be required to suggest different claims or call for an interview for the purpose of formulating such claims with the inventor or his counsel. This is the common practice of the West German Patent Office. And this is the healthy way to speed prosecution, a much better way than arbitrarily limiting the applicant to two Patent Office actions, as now proposed in so-called "compact" patent prosecutions.

Could we also move a step further in order to expedite prosecution and eliminate the necessity for so many appeals before the Board of Appeals and the courts? When the Patent Office is convinced that invention is present, but agreement as to the working of the claim cannot be reached with the inventor's counsel, might not the Patent Office thereupon give the applicant his choice: either suffer a final rejection or accept a prompt patent containing a claim of the scope that seems proper to the Patent Office; but including in the patent document claims not approved by the Office but which the applicant still feels describe the invention more fairly.

The whole purposed of claims is to alert the public as to the metes and bounds of the patent grant. No one, from reading a claim, however, understands what the claim covers or what it actually means without recourse by skilled counsel to the file history of the patent. Since counsel must study this file history to interpret the claims anyway, it would seem that he could equally well determine whether the claim granted by the Patent Office under this new

proposal was broad enough, or whether the inventor's claim represent more adequate allowable protection. The public can thus be alerted as to what the court will probably hold with regard to the ultimate scope of the patent, which seems to be the only reason for having claims in the first place.

Healthy expedition of patent applications prosecution and the elimination of much appellate procedure would appear to be the dividends accruing from such a system. This would be particularly true where the matter of presumption of validity (which would only attach to the Patent Office allowed claims) is purely a procedural benefit as interpreted in practice by the modern courts.

Another suggestion I would offer for expediting patent application prosecution is also peculiarly within the province of the commissioner to accomplish, namely to abolish some of the ritualistic and formalistic rules of claim draftsmanship. While at one time in our development of the law it was probably sound to adopt greater strictness in this regard, in order to introduce clarity and definiteness and to establish how claims should be construed, I question whether this is still valid <sup>8</sup>.

In the 1952 Patent Act, Congress went part way in authorizing functional claim language ("means" plus function), with a statutory provision that this is to be interpreted to cover the kind of structure disclosed in the patent specification and equivalents. This was intended to curb court criticisms and to simplify claim drafting, consistent with permitting proper scope of coverage.

Should we not also remove, however, the time-consuming obstacles involved in trying to connect and agree with the Patent Office upon broad claim terminology, simply because the rules forbid the use of alternative or illustrative expressions, to wit; "of metal or plastic or wood or the like," or "such as electrical or mechanical or electro-mechanical members," etc? Shouldn't we re-examine these expressions to see whether they actually introduce indefiniteness and vagueness, or whether, on the contrary, they do clarify what is intended?

An additional proposal relates to encouraging prompt disclosure of ideas without fear of litigation and appropriation. It is doubtful if any agency outside the Patent Office receives so many new ideas. The Patent Office, moreover, generally receives these ideas years in advance of their publication either in periodicals or in pieces of commercial equipment; and certainly the long delay in the issuance of patents prevents the rapid informing of the public as to the contents of the applications. Is it in the public interest that our system, which requires in this era acceleration in new-product and in new-idea development, should be stymied by the secrecy with which these ideas must be held in the Patent Office until the inventor dares to risk disclosure?

I have proposed <sup>9</sup> that the Patent Office or a related arm of the Commerce Department should assume the added function of lending its good offices for bringing together promptly inventor and interested potential licensee under a predetermined set of safeguards. The inventor must, of course, be free to refuse

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<sup>8</sup>Robert H. Rines, "Recent Attitudes – Judicial, Executive, and Legislative – Foreshadowing the Demise of the Present Form of American Patent System," *Bulleting of the Canadian Patent Institute*, January, 1962.

<sup>9</sup>*Ibid.*

this proposal if he so desires, and to proceed as he does now. If, however, he wishes the benefit of this proposal, he would agree (1) that the details of his invention may be brought to the attention of possible licensees subscribing to a Patent Office service and (2) that, should the potential licensee be interested, the inventor agrees to terms as provided in a predetermined set of royalty or other payment standards related to the industry involved.

Those who wish to be subscribers to or recipients of this confidential information as potential licensees, on their part, will agree to keep the disclosures in confidence and, if they decide to adopt the ideas and if the Patent Office grants a patent covering the same, to respect the patent and to enter into arrangement under the provisions of the predetermined set of standards. The potential licensees subscribing to this service would have the right to call to the attention of the Patent Office any prior art or prior use of which they are aware so that the examiner would not inadvertently issue a patent where it should not be granted. This procedure protects the potential licensee and should not hold up the prosecution of the patent applications. The potential licensee would still have rights to contest infringement, or to contest inventorship on the basis of any application then pending, but this right should probably be restricted to pending applications in order to protect the inventor from interference contested on matters that the license may have independently previously evolved but did not consider important enough to act upon. This would also encourage the potential licensee to file more punctually and thus disseminate more rapidly information beneficial for the progress of the useful arts. Toward the same end, moreover, beneficial tax provisions might be provided, though this would not be a necessary or required condition.

Under such a system, inventors would feel free to have subscribing potential licensees examine their inventions and, by subsequent direct contact, further confidential information not contained in the patent application, without fear of legal entanglements. This should also protect potential licensees from being held up by inventors who demand an unreasonable price; and it also protects the potential licensees with respect to their own independent developments and to the prevention of inadvertent issuance of patents.

All of this may be accomplished, moreover, by the utilization of the type of examiner presently employed in the classification division. Such examiners are skilled in determining the field and nature of inventions, as they are filed, and are able to correlate the same with requests that will similarly be filed by the subscribing potential licensees. It would appear to be in the decided interest of the United States Government itself to subscribe to this service. In such event, indeed, a great many of the present-day complications and distrust of the government by inventors could be eliminated.

Since the rules of practice of the Patent Office, made pursuant to the statutory authorization of the patent laws, have long recognized the right of the Patent Office to permit others to inspect applications, provided permission is given in writing by the applicant, no new legislation or other action on the part of Congress would seem to be required to institute this program. Rather, it would appear to be peculiarly within the jurisdiction of the commissioner of

patents to set up such a liaison function. The Patent Office has already assumed jurisdiction of a somewhat similar, though less comprehensive program, in connection with inviting attention to patents that are available for licensing.

This proposal, moreover, goes far beyond the concept of the National Inventors Council and the products list circular of the Small Business Administration, and should stimulate inventors to complete their thinking on ideas that relate not only to their own businesses or fields of endeavor, but to entirely diverse fields; all with assurance that such disclosure is worthwhile and does not involve the likelihood of costly legal procedures and litigation.

If we are to enjoy the luxury of having many of our best engineers and scientific people work in fields and on devices that have no bearing on pressing problems in military and other high-priority fields, we must find some incentive – the above system or something like it – which will impel these engineers and scientists to work on problems not immediately concerned with their daily duties. Certainly the important inventions that have been contributed in various fields by workers outside those fields demonstrate the value of such a result. This may be part of the answer to the problem of maintaining our freedom to select what we wish to work on in our daily lives, while competing more effectively with the Soviet society, where the very best brains are forced to work upon military and other pressing state problems.

Lastly, we should explore more promptly whether the patent system can ever be adequate as virtually the only universal *government* reward for advancements in the useful arts. Scientists and engineers are stimulated to creativity, of course, by mechanisms other than the patent system, including an enthusiasm for science or technology itself, the approbation of the scientific or engineering community, the publication of papers, the winning of a Nobel prize, and the attainment of a higher position in an organization. Privately sponsored efforts toward this goal of providing reward and recognition for various degrees of creative advances in applied science and engineering, as distinguished from those of pure science, are under way under the auspices of The Academy of Applied Science.

Furthermore, we should select that situation dealing with the useful arts and applied science in which monetary, business, and prestige rewards can be achieved through patents and modernize the patent system so that it will effectively satisfy present needs and provide the stimulation necessary to re-encourage creativity in the mid-twentieth century applied scientific and engineering community<sup>10</sup>.

Most important, however, we should decide promptly whether it is *invention per se* that we should stimulate primarily, or the executing of *actual innovation* – requiring *development and entrepreneuring*, as well<sup>11</sup>. If it is the latter,

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<sup>10</sup>Note also the suggestions of Albert Szent-Gyorgyi, "Science, Man, and Politics," *Saturday Review of Literature*, Oct. 20, 1962, p. 24, concerning the necessity for talented scientific people to become actively interdisciplinary in this era where "the dominant influence of science is perhaps the outstanding fact of today's world."

<sup>11</sup>Not all "innovation" requires invention. Should we not seek to define "innovation," if this is what we are after, and reward it?

as I strongly suspect, then perhaps a keying of tax-preference benefits to the innovator over a period of years, rather than the creation of exclusive rights and a belaboring of the patent system, will be a more effective stimulant which, as an ancillary benefit, would carry with it great simplification of our litigation problems.