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Patent Cooperation Treaty: A New Adventure in the Internationality of Patents

by Edward F. McKie, Jr.*

I. Background

Patents are basically national incentives for promotion of the "progress of the useful arts."¹ They promote the act of invention. They also promote disclosure and exploitation of inventions, by granting to inventors (and their assignees) the right to exclude others from use of their inventions for a limited time (seventeen years in the United States). All the industrialized countries and most developing countries have patent systems. Patents are, however, basically national, rather than international, in character. They are enforceable only within the territory controlled by the country which grants them.

The result is that the inventor or his company must apply for a patent in each country in which the invention is to be exploited. Until the advent of the Patent Cooperation Treaty (PCT),² a separate application complying with varying formality requirements has been necessary for each such country. These formality requirements include language of the application; format, including drawing and specification contents and arrangement and form of claims;³ and national fees. These national applications have been subject to separate examination in each country. Where novelty examination was required by national law,⁴ this too was separately done by each country.

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¹ U.S. CONST. art. I, § 8, cl. 8.

² Patent Cooperation Treaty [1978] — U.S.T. __, T.I.A.S. No. 8733, *reprinted in* 9 INT'L LEGAL MATERIALS 978 (1970) [hereinafter cited as PCT]. PCT and its associated rules have also been published by WIPO and the U.S. Patent and Trademark Office.

³ The claims, generally, are the measure of the patent. They indicate to the public what subject matter may not be used without a license from the patent owner. *See, e.g.*, 35 U.S.C. § 112 (1976).

⁴ Some countries, principally the less developed, merely register patents without novelty examination. Novelty examination includes searching through prior publications, including prior patents. If the same invention is found in prior publications, a patent is refused. Even if there is a difference between the invention being examined and the prior publications, a patent is refused unless the difference is such that the similarity is found to be unobvious. *See, e.g.*, 35 U.S.C. §§ 102, 103 (1976).

International cooperation with respect to patents was begun with the Paris Convention of 1883,⁵ adhered to by the United States and most of its trading partners. However, the Paris Convention says nothing about formality requirements, language or fees. Its two most important provisions merely guarantee that nationals of all member countries will be treated equally with nationals of the country receiving a patent application under the Convention (the national treatment principle),⁶ and that applications filed within one year after first filing in a member country will be treated as if filed in the other countries on the date of first filing (the one-year priority period).⁷

The priority of patent applications is extremely important. In most countries, the date of application is treated as the date of invention. Patent rights are granted to the first to file an application.⁸ The one-year priority period of the Paris Convention therefore is an important benefit. Nevertheless, an applicant filing in foreign countries under the Paris Convention must do a number of things within that one-year priority period. He must translate the application into the language of each country in which he wishes patent protection; he must revise his application to comply with the differing formality requirements of each country; he must appoint an approved patent agent⁹ in each country; and he must pay the national fees. Because many inventions are not in use when the first application is filed,¹⁰ and completion of all these tasks may cost many thousands of dollars, a decision to seek foreign protection frequently is postponed until near the end of the one-year period. When the decision to file abroad is made, a mad scramble often results. In that scramble, deadlines sometimes are missed and opportunities for foreign patent protection lost. This was the way things stood before the PCT was adopted.

II. Objectives of the Treaty

The United States made the initial suggestion which ultimately

⁵ Paris Convention for the Protection of Industrial Property, March 20, 1883, 25 Stat. 1372, T.S. No. 379 (current version at 21 U.S.T. 1583, T.I.A.S. No. 6923).

⁶ *Id.* art. 2. The national treatment principle is outside the scope of this paper. However, it is highly relevant because it insures that each member country must treat foreigners in the same way that it treats its own nationals, insofar as patents are concerned.

⁷ *Id.* art. 4.

⁸ The U.S. approach is almost unique in this respect. Here, it is possible to prove a date of invention earlier than the application filing date and thereby obtain a patent even though another had earlier filed an application on the same invention. Even here, however, the prior filing is presumptively the first invention and priority in filing therefore is most important. 35 U.S.C. § 102(a), (e), (g) (1976); 37 C.F.R. §§ 1.201-.237 (1977).

⁹ In most countries outside the United States, patent agents are not lawyers; they practice only before the patent office, not the courts.

¹⁰ Patenting in many countries is barred by use prior to filing, even though that use is in a foreign country. Use by the applicant before filing does not bar a patent in the United States, so long as it began less than a year before the application for patent was filed. 35 U.S.C. § 102(b) (1976). However, patent protection in Europe may be barred by prior use here, even though an American patent can be obtained.

gave rise to the PCT. The suggestion arose in the form of a motion to the Executive Committee of the Paris Union on the Protection of Industrial Property (the members of the "Paris Convention"). It noted that the prior international system embodied in the Paris Convention provided for a multiplicity of filings, searches and examinations in the various national patent offices. This was said to be wasteful to applicants as well as to national patent offices because each patent application on the same invention in the various countries around the world was treated separately by those countries.

Patent offices conducted multiple searches through the prior art before deciding whether to grant or deny a patent. Each office made its own independent search and its own independent decision to grant or deny a patent. With the tremendous influx of patent applications to national patent offices after World War II, this search and examination obligation became increasingly important. The examining patent offices did not have the facilities to discharge their obligations within a reasonable time period. Their backlog increased. In some countries, the period of pendency of unexamined patent applications reached five, and even ten, years.

The major examining countries took various steps to solve this problem. In the United States, so-called "streamlined prosecution" was instituted in order to reduce the number of examiner hours spent per application, and more examiners were hired. In the Netherlands, West Germany and Japan, a system of "deferred examination" was introduced. Under that system, an application was allowed to remain pending without examination for an extended period of time, *e.g.*, five or seven years. Only when examination was specifically requested by the applicant or a possible infringer did the patent office search and examine the application. Because no such request was made as to a large number of applications, substantial search and examining time was saved.

Neither of these approaches, however, wholly solved the problem. Indeed, deferred examination introduced new problems and has now been discarded under the European Patent.¹¹ The problem of multiple searches and examination of the same invention by the many examining patent offices remained.

The primary objective of PCT was to reduce this wasteful duplication. This objective was provided for in the Treaty by setting certain minimum standards for formalities of applications,¹² by providing that an international application complying with those minimum standards filed in any Treaty country was thereby an application in all countries designated by the applicant;¹³ and by providing for a single international

¹¹ *See* text accompanying notes 27-29 *infra*.

¹² PCT, art. 1-8, Rules 3-17.

¹³ *Id.* art. 11.

search for each international application.¹⁴

Under PCT, a U.S. applicant can file a single international application in the U.S. Patent and Trademark Office within twelve months after the initial filing of the national application and obtain the priority date of the initial U.S. application (under the prior Paris Convention). If the international application complies with certain minimum requirements, it is automatically a national application in each of the countries participating in the PCT which are designated by the applicant on the date of filing in the U.S. Office.

Formal requirements, of course, include the payment of fees,¹⁵ compliance with the size requirements of sheets of specification and sheets of drawings¹⁶ and the necessity for filing a request, an abstract and a description.¹⁷ These requirements, however, are uniform throughout all the Treaty countries. One does not have to obtain several different sizes of drawings, for instance, and different sizes of specification sheets with different spacing requirements for the lines on those sheets. Thus, only a single uniform standard is required under PCT for all patent applications.

III. PCT's Status to Date

The PCT was adopted at a diplomatic conference in Washington, D.C. in 1970.¹⁸ Because statutory changes in national law were necessary, ratifications were not obtained until early 1978. Actual operation under the Treaty began on June 1, 1978, when PCT applications were first accepted by the member countries. As of this writing, the member countries include Brazil, Cameroon, Central African Empire, Chad, Congo, Denmark, France, Gabon, Germany (Federal Republic), Japan, Luxembourg, Madagascar, Malaysia, Senegal, Soviet Union, Sweden, Switzerland, Togo, United Kingdom and the United States. Austria, Belgium, Italy and the Netherlands are expected to join shortly.

IV. Analysis of PCT

There are several advantages to obtaining a multinational patent via the mechanisms of PCT. Under PCT last-minute filings for patents in foreign countries are possible, the search required for counterpart applications in numerous countries is reduced, and unnecessary foreign filings may be eliminated or decreased. The major disadvantage under PCT is the high cost of filing fees. Each applicant must decide whether

¹⁴ *Id.* art. 15-18.

¹⁵ *Id.* Rules 15, 16.

¹⁶ *Id.* Rule 11.

¹⁷ *Id.* art. 3-7, Rules 3-8.

¹⁸ The details and operations of PCT are spelled out in a wealth of materials. The simplest comprehensive treatment is contained in WORLD INTELLECTUAL PROPERTY ORGANIZATION, PCT APPLICANT'S GUIDE (1978).

the benefits of PCT compensate for the cost of filing. And in some cases use of the European Patent system may be preferred to PCT.

A. Improved Application Procedures

Under PCT a last-minute decision to file in a number of foreign countries can be implemented by the mere filing in the U.S. Patent Office of an international application complying with the Treaty and its rules. Thus, for a practitioner with a client who delays his decision to file abroad until the last minute, PCT filing will be highly advantageous.

The Treaty may incidentally benefit the public at large or at least the application filing portion of that public, although such benefits will probably not affect a decision as to whether to use the PCT route or the still available Paris Convention route. These benefits flow from the requirement that the members of the PCT agree upon uniform standards. For instance, some requirements of the U.S. Patent and Trademark Office regarding "Unity of Invention" have been relaxed because of the Treaty. There is no longer a limitation that only five species may be claimed in an application. Multiple dependent claims are now accepted. The Treaty also makes it possible to file a single application which claims an apparatus for producing an article, the method for producing that article and the article itself. Independent claims, at least one for each of these three classes of invention, can be filed in a single application.¹⁹ There are other splash-over benefits to U.S. applicants but this article will concentrate on features which may affect a practitioner's decision on whether to follow the PCT route.

PCT does not eliminate the system provided under the Paris Convention, *i.e.*, the national, or Paris Convention, route. One can still go directly to the various national patent offices without filing a PCT international application and thereby avoid the PCT fees. PCT provides an alternate route which may or may not be advantageous, depending on the client's circumstances.

B. International Search Precedes National Phase

As indicated earlier, a primary objective of PCT was to reduce the searching required by the various national patent offices examining counterpart applications on the same invention. PCT provides for a single international search by a single International Searching Authority.²⁰ The various designated offices of the countries in which the applicant wishes a patent may make use of that search in any way they see fit. If they desire to perform further searching, of course they may do so. But at least the international search will provide a useful intermediate point in searching. It certainly should not be necessary to conduct the same

¹⁹ 37 C.F.R. § 1.141 (1977).

²⁰ For applications originating in the United States, the U.S. Patent and Trademark Office is the International Searching Authority. 37 C.F.R. § 1.413 (1978).

kind of full-fledged search that is now necessary in each of the examining patent offices around the world.

This search requires time, however. To provide that time, the Treaty delays national processing of applications in the designated countries so that the International Searching Authority can make its search and provide the results of that search for publication. As a result of this necessary delay and a delay keyed into the Treaty to permit amendment of the application after the search results are available, the national processing of applications cannot occur until twenty months after the initial priority filing. In other words, if one files a U.S. national patent application and follows that one year later with an international application in the U.S. Patent and Trademark Office, he need not file the translations necessary under national law in the countries in which he is interested in obtaining protection, nor appoint agents to handle those applications in those several countries nor pay the national fees in those countries until twenty months after the priority date. In this example the applicant has an additional eight months after the filing of the international application within which to take these expensive and time-consuming steps.²¹

Moreover, at the time he is required to provide these translations, appoint these agents and pay these fees, the applicant has had the search report for several months. He has had the time to examine the search report and to decide what novelty, if any, remains in his application and to estimate the scope of protection that he is likely to receive from the various foreign countries in which he is interested. He also has had time to amend the application in light of that search report in order to maximize his opportunity for obtaining worthwhile protection.

Indeed, by the time the twenty month period expires, the U.S. applicant will usually know whether he is likely to obtain a U.S. patent and will have a fairly good idea of the scope of that patent. This is possible because the average pendency of U.S. applications is now less than twenty months.

In many cases the passage of time diminishes the importance of foreign patent protection. The invention may not be as significant as it was initially thought to be. Indeed, it may prove to be unsuccessful in the marketplace. The economic situation of the applicant may become such that it does not justify the cost of translation, appointment of agents and payment of foreign fees. The degree of novelty may be so slight that patent protection in some, if not all, of these foreign countries is not worth the cost. If these circumstances pertain, then the applicant may save some, if not all, of the additional costs of prosecution of his applications in foreign countries by abandoning his efforts to obtain patent protection before the national stage is reached; that is, by failing to comply with national requirements within twenty months of the initial filing.

²¹ PCT, art. 22, 23.

These are the major advantages of PCT. These are the planned objectives. Where they pertain, significant savings may result. Where they do not pertain, national (or Paris Convention) filing may be the better route.

C. More Than Mere Postponement of National Costs

PCT may well have no advantages for an applicant who is interested only in one or two foreign countries, or who is certain that he will be going forward with protection after the expiration of the twenty-month period following U.S. initial filing, or who knows the prior art so well that the search report will be extremely unlikely to change his mind with respect to the countries in which protection is desired. It has been said that PCT merely postpones payment of national fees, furnishing of translations and appointment of agents and that this postponement ultimately effects no savings because all of these difficulties and expenses must be undertaken in any event. Where, however, foreign filings are eliminated or reduced because of a change of circumstances or because the margin of novelty as indicated by the international search report does not justify filing in certain or all of the countries, PCT has accomplished more than a mere postponement. This creates a real saving as regards each country which is dropped from the designated countries by reason of change in circumstance.

D. PCT Fees

PCT thus has definite advantages in that the applicant may obtain a postponement, acquire additional intelligence through the search report and amend his application in light of that report, all before substantial expenses must be incurred. In order to obtain these advantages, however, the applicant must pay the fees for filing an international application. These fees are high. They are intended to cover the costs of the PCT system, the costs of the Receiving Office for international applications, the costs of the International Searching Authority and the costs of the International Bureau. In most countries, including the United States, patent application fees paid to the national offices do not cover the cost of processing applications. (In the United States, the fees cover less than 50% of the processing costs.) Under PCT, the fees are high enough for 100% cost recovery. These fees are the disadvantage of PCT.²²

²² Others have referred to different asserted disadvantages of PCT, including, notably, its complexity and the opportunity for and consequences of failure to comply with its requirements. But PCT is complex because the formality requirements of its member countries are complex. To provide uniform requirements and examination for compliance with those requirements necessitated complexity. The deadlines set by PCT also may be onerous. But they are necessitated by the postponement of national processing of applications until twenty months after the first filing date and the need for such processing to begin as soon as this postponement permits.

The PCT fees break down in the following way. The Receiving Office (which will be the U.S. Patent and Trademark Office for U.S. nationals and residents) charges a transmittal fee. This is intended to cover the cost of checking the formalities of the application, of transmitting a record copy of the application to the International Bureau, which is the World Intellectual Property Organization (WIPO), and of transmitting a search copy of the application to the International Searching Authority.²³

The international fee paid to WIPO is also required. That fee has two components: the basic fee which will be \$150 and the designation fee which will be \$40 for each country in which the applicant wishes protection. (If a regional office, such as the European Patent Office, is designated, only a single \$40 fee is required, no matter how many European countries are designated.)²⁴ The international fee is intended to cover WIPO's expenses in maintaining the record copy and providing copies to the designated countries at the end of the international phase (twenty months after the priority date) and in publication of the application, together with the search report.

The fees also include a search fee to pay the cost of the International Searching Authority.²⁵ There will be a partial refund of this search fee in the United States, the amount will depend upon the similarity between the claims subject to the international search and the claims subject to the U.S. national search. The refund may be as much as \$270.²⁶

All of these fees, taking into account the maximum possible refund and assuming that three countries (or the European Office and two countries not within that system) are designated for foreign filing, would amount to about \$350. This is not a small amount, even by today's standards. One should not incur fees of this magnitude unless it is probable that savings will result. But, if one is looking at aggregate costs for translations, for national filing fees and for agents' fees in the thousands of dollars, one should certainly consider the payment of the PCT fees as a hedge against payments of thousands of dollars which might be saved if these national costs turn out to be undesirable when the search report is received.

E. Relevance of the European Patent

One cannot speak of PCT without according recognition to the European patent system,²⁷ under which applications were first accepted June 1, 1978. That system provides for a single search and examination for all European countries which adhere to the treaty which established

²³ In the United States the fee is \$35. 37 C.F.R. § 1.445 (1978).

²⁴ PCT, Rule 15.

²⁵ This fee is \$300 in the United States. 37 C.F.R. § 1.445 (1978).

²⁶ 37 C.F.R. § 1.446 (1978).

²⁷ Convention on the Grant of European Patents, Oct. 1973, __ U.N.T.S. __, [1978] Gr. Brit. T.S. No. 20 (Cmd. 7090), *reprinted in* 13 INT'L LEGAL MATERIALS 2, 68 (1974).

the European patent. The search takes place at the Hague, in the Netherlands. Examination takes place at the European Patent Office in Munich. A single patent is granted, which then becomes a bundle of patents, one for each member country in which protection is sought.

This result is in extreme contrast to PCT which does not itself provide for the grant of patents. Rather, under PCT, the search results (and the examining results, if any) are transmitted to the member countries in which protection is sought. Then, these member countries each decide whether to grant their own national patent.

The European patent system thus provides for a single search and a single examination, both by a single agency, and for the grant of a single patent. PCT provides for a single search by one of a plurality of International Searching Authorities (the United States, the U.S.S.R., Japan and the IIB at the Hague). That single search may then be supplemented with additional searches by the countries in which protection is sought (or by the European Patent Office). For U.S. nationals, there will be no single examination under PCT as presently planned. There is no single patent under PCT.

For an American desiring to obtain patent protection in several European countries, the European system provides several advantages. One very significant advantage is that filing may be in English, and prosecution before the European Patent Office will be in the same language. A single prosecution can be effected, rather than multiple, and quite different, prosecutions for the several countries in which protection is desired.

The creation of the European patent is due in no small measure to PCT. Before PCT was established, the negotiations that ultimately led to the European system were in the doldrums. There was serious doubt that the European patent would ever be possible. PCT established the framework and the agreement upon formalities that led to the European patent. Perhaps more importantly, it provided the stimulus for renewed negotiations which led within a few years to the European patent convention.

These benefits of PCT are of little importance to patent counsel trying to decide whether to follow the PCT route, because he ordinarily will be more interested in costs. Should he take the PCT route or the national route to the European Patent Office? That is, should he file an international application designating the European Office or should he file an application directly in that office?

In making that decision, patent counsel will be considering the advantage of postponement of payment of the high fees²⁸ of the European Patent Office for an additional eight-month period. Filing of an international application under PCT, with designation of the European Patent Office, constitutes a filing in that office. But the European fees are na-

²⁸ Those fees can easily exceed \$3,000 per application under current exchange rates.

tional fees, postponed under PCT until twenty months after the priority date. During that period the U.S. Patent and Trademark Office, as an International Searching Authority, will have completed the international search. If that search discloses lack of novelty or little likelihood of patentability, the designation may be dropped and the high fees of the European system will be avoided. If the designation is maintained, the application may still be amended in the light of the search results before the national procedures in the European Office begin. Of course, there is a possibility that at least a part of the European search fee of DM 1450 (currently approximately \$810) will be refunded in the event the European search is unnecessary or reduced because of the international search.

A prime consideration, however, will be whether foreign patent protection is to be sought in countries outside Europe. At the moment the only major countries outside Europe in which Americans are likely to be interested and which PCT applications may designate, are Japan and the Soviet Union. When use of the PCT route is not economically justified in seeking patent protection in European countries, the inclusion of Japan and/or the Soviet Union may tip the scales for the PCT route.

Of course, the high cost of the European patent may encourage the use of national patent offices rather than the European Office. These offices may generally be approached directly through PCT.²⁹ It has been estimated that if more than three countries are to be approached, PCT will be more economical even if the national phase is pursued; the cost of filing under PCT will be no greater than the Paris Convention route.

V. Phase II of PCT, the International Examination

So far, this article has only dealt with the twenty month delay which is available under Chapter I of PCT. But under Chapter II of PCT, the so-called Second Phase, there are some added benefits to applicants. At the present time, the United States has made a reservation under Article 64 of the Treaty with respect to Chapter II and has declared that it shall not be bound by the provisions of that Chapter. Serious consideration, however, is now being given to withdrawal of that reservation.³⁰

If the United States does withdraw that reservation, any applicant who wishes, by electing to obtain an international examination report, may take advantage of an additional five-month period for postponement of the national phase. If the United States withdraws its reservation, it is contemplated the U.S. Patent and Trademark Office would become an International Examining Authority. Within that additional five-month period, prosecution somewhat similar to the present prosecu-

²⁹ France is an exception. PCT applications may not designate France directly; rather, French protection for PCT applications may only be obtained through the European Office.

³⁰ It is now understood that budgetary restrictions on the U.S. Patent and Trademark Office may result in indefinite postponement of any decision to withdraw our reservation.

tion before the examiner would take place. There would be an initial examining report indicating whether, in the opinion of the patent office, the claims define allowable subject matter in view of the international search report.³¹ The applicant would then be able to respond, amend his claims and present arguments. The patent office could then make a decision on the basis of that response. The report from the patent office would be confidential, and the applicant could make use of it or not as he wished. If the report were favorable, an applicant would probably furnish that report, together with the appointments of agents, translations and the national fees, to the patent offices of the foreign countries in which he wished protection.

This additional five-month delay within which the applicant would have the benefit of an opinion by an examiner as to patentability would better enable the applicant to make a decision as to whether to seek patent protection in the countries in which he elects to use the preliminary examination report. If the report were unfavorable, he could still go forward if he wished, but if he thought the available patent protection would not justify this, he could drop his election of one or more or all of these foreign countries. He could thus save the national fees and translation costs for those countries.

These reports by the International Examining Authority are merely advisory opinions. The national offices may decide to go along with them or not as they choose. The chances of obtaining protection in various countries may differ because standards on prior art differ from country to country. In any event, these reports would permit the applicant to be far better advised as to his chances of obtaining protection before he had to invest the substantial amounts of money necessary to pay agents' fees, to prepare and file translations and to pay national fees.

VI. Conclusion

PCT is not the answer to all patent problems in the international arena. It was never intended to be. At the initial meeting of the Committee of Experts on PCT in September of 1967, a number of countries gave voice to the desirability of a much better system than PCT, one that would involve a true international patent. Such a goal, however, was impossible to achieve at that stage. It would require harmonization of all the patent laws of the world, a task that may well take hundreds of years. PCT is merely a step forward toward the goal of reducing the expense and complexity of international patenting. It does provide significant advantages in that it delays the need for very significant outlays of money until the applicant is much better advised than he is today before he has to make his decision to commit this money. Certainly the PCT

³¹ The international search report contains no opinion on patentability. It merely identifies the prior publications found by the International Searching Authority to be relevant to the claimed invention.

route should not be used for all applications that are going to be filed abroad. But it should be considered by anyone who has in mind the possibility of foreign patent protection.