

Abstract

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Edited by Brian Carter

INTERNATIONAL PATENT TREATIES: AN ATTEMPT TO MAKE INTELLECTUAL PROPERTY RIGHTS IN LIVING MATTER MORE USER-FRIENDLY

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I. Introduction

The international rights of inventors, creators, and property owners are very difficult to unify, but as cultures and businesses become more globally aware, it is extremely vital that laws governing intellectual property not only address concerns with a genuine understanding of the international nature of the subject matter but with sensitivity to the magnified role intellectual property plays in the betterment of our global society. These concerns must specifically be addressed with respect to intellectual property rights in living matter with a keen awareness of the special issues that can arise.

The World Intellectual Property Organization keeps the international community aware of the important role efficient systems of intellectual property law play in the progression of the quality of life for individuals around the world. Two of its governing ideals are articulated in the Paris Convention for the Protection of Industrial Property (which allows for a more unified way to recognize intellectual property issues) and the Patent Cooperation Treaty (which streamlines the process necessary in applying for patents).

II. World Intellectual Property Organization

The World Intellectual Property Organization (WIPO) is dedicated to ensuring that “the rights of creators and owners of intellectual property are protected worldwide and that inventors and authors are, thus, recognized and rewarded for their ingenuity.”¹ WIPO is intended to act as a “spur to human creativity, pushing forward the boundaries of science and technology and enriching the world of literature and the arts.”² The stable environment for marketing of intellectual property provided by WIPO “oils the wheels of international trade.”³

As of September 2004, the member states of WIPO include 180 countries, accounting for over ninety percent of the world’s countries.⁴ “WIPO carries out many tasks related to the protection of intellectual property rights, such as administering international treaties, assisting governments, organizations and the private sector, monitoring developments in the field and harmonizing and simplifying relevant rules and practices.”⁵

In looking to the future, “WIPO faces many new challenges; one of the most urgent is the need for both the Organization and its member States to adapt to and benefit from the rapid and wide-ranging technological change, particularly in the field of information technology and the Internet.”⁶ The main goals of WIPO in the near future can be summarized as follows:

- a. ensure the presence of the fundamental elements needed to enlarge the knowledge base, encourage innovation and its exploitation and create a business-friendly, IP-aware environment;
- b. mesh intellectual property and development policies to provide a cohesive, coherent infrastructure, environment and culture to stimulate the use of invention and creativity for economic growth; and

¹ World Intell. Prop. Org., *General Information: An Organization for the Future*, at http://www.wipo.int/about-wipo/en/gib.htm#P23_2347 (last visited Sept. 11, 2004) [hereinafter *General Information: An Organization for the Future*].

² *Id.*

³ *Id.*

⁴ *Id.*

⁵ *Id.*

⁶ *Id.*

- c. fine-tune IP assisted development strategies and policies to build confidence and to keep abreast of rapid changed in business, cultural and technological environment, both nationally and internationally.⁷

The goals WIPO has set for itself depend on the continued success of past treaties, such as the Paris Convention and Patent Cooperation Treaty (PCT), and must be interpreted to allow consistent results concerning intellectual property rights in living matter.

III. The Paris Convention for the Protection of Industrial Property

WIPO has its roots in 1883 when “the need for international protection of intellectual property became evident when foreign exhibitors refused to attend the International Exhibition of Inventions in Vienna in 1873 because they were afraid their ideas would be stolen and exploited commercially in other countries.”⁸ The Paris Convention for the Protection of Industrial Property (The Paris Convention) of 1883⁹ marked the birth of “the first major international treaty designed to help the people of one country obtain protection in other countries for their intellectual creations in the form of industrial property rights.”¹⁰

The Paris Convention “constitute[s] a Union for the protection of industrial property.”¹¹ Under the Paris Convention “any person or entity that files a patent application in one of the countries of the Union shall enjoy all of the benefits of priority if the same patent application is filed within twelve months in another Union Country.”¹² The ideals of uniformity and

⁷ Message from Kamil Idris, Director General, World Intellectual Property Organization, at http://www.wipo.org/about-wipo/en/dgo/dgki_2003.html (last visited Sept. 11, 2004).

⁸ World Intell. Prop. Org., *General Information: The Beginning*, at http://www.wipo.int/about-wipo/en/gib.htm#P29_4637 (last visited Sept. 11, 2004) [hereinafter *General Information: The Beginning*].

⁹ Paris Convention for the Protection of Industrial Property, Mar. 20, 1883, 13 U.S.T. 2, 828 U.N.T.S. 107, revised by Stockholm Revision Conference, July 14, 1967 [hereinafter Paris Convention].

¹⁰ *General Information: The Beginning*, *supra* note 8.

¹¹ Paris Convention, *supra* note 9. “The protection of industrial property has as its object patents, utility models, industrial designs, trademarks, service marks, trade names, indications of source or appellations of origin, and the repression of unfair competition.” *Id.*

¹² HOWARD C. ANAWALT & ELIZABETH E. POWERS, *IP STRATEGY: COMPLETE INTELLECTUAL PROPERTY PLANNING, ACCESS AND PROTECTION* § 1:44 (July 2003) [hereinafter *IP STRATEGY*].

progressive international legislation set forth in the Paris Convention laid the ground work for future treaties relating to international patent law, such as the Patent Cooperation Treaty.

IV. Patent Cooperation Treaty

WIPO recognizes the “need for mechanisms providing speedy protection for new inventions and commercially valuable assets, such as trademarks and industrial designs in multiple countries.”¹³ In response WIPO administers treaties that “simplify and reduce the cost of making individual applications or filings in all the countries in which protection for a given intellectual property right is sought.”¹⁴ The PCT¹⁵ is “the most successful and widely used of these treaties.”¹⁶

The application of the PCT serves as a “mechanism for streamlining the international patent application process—instead of filing the same patent application in twenty different countries for a search and examination, an applicant may file a single PCT international application, obtain a search report and, if desired, an examination report prior to filing the applications in each of the countries.”¹⁷ By filing a PCT application, the patent applicant from a contracting state can file the application “as an international application in any contracting state.”¹⁸

¹³ World Intell. Prop. Org., *General Information: Global Protection Systems and Services*, at http://www.wipo.int/about-wipo/en/gib.htm#P86_11844 (last visited Sept. 11, 2004).

¹⁴ *Id.* Other treaties that serve the same purpose are the Budapest Treaty (on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure), the Madrid Agreement (Concerning the International Registration of Marks), Lisbon Agreement (for the Protection of Appellations of Origin and their International Registration), and Hague Agreement (Concerning the International Deposit of Industrial Designs). *Id.*

¹⁵ Patent Cooperation Treaty, June 19, 1970, 28 U.S.T. 7645, 1160 U.N.T.S. 231.

¹⁶ World Intell. Prop. Org., *General Information: Patent Cooperation Treaty*, at http://www.wipo.int/about-wipo/en/gib.htm#P98_13211 (last visited Sept. 11, 2004) [hereinafter *General Information: Patent Cooperation Treaty*].

¹⁷ IP STRATEGY, *supra* note 12.

¹⁸ *Id.*

A. Application Process

Chapter I of the PCT governs the International Application process as well as the International Search.¹⁹ Chapter II of the PCT governs the International Preliminary Examination.²⁰ “The PCT application process has three distinct stages: (1) filing the application; (2) preliminary searching and examination; and (3) examination in individual countries.”²¹ Once an application is filed, “an applicant receives valuable information about the potential patentability of his invention (through the international search report and the optional international preliminary examination report) and the inventor has more time than under the traditional patent system to decide in which of the designated countries to continue with the application.”²²

B. Filing of the Application

A perspective patent applicant must first file an application. “Any resident of a Contracting State may file”²³ what is “referred to as an ‘international application.’”²⁴ The statutory language of the PCT states that “[a]n international application shall contain, as specified in this Treaty and the Regulations, a request,²⁵ a description,²⁶ one or more claims,²⁷ one or more drawings (where required),²⁸ and an abstract.”²⁹ The international applications shall also:

¹⁹ Patent Cooperation Treaty, *supra* note 15, ch. I, arts. 3-14.

²⁰ *Id.* ch. II, arts. 31-42.

²¹ KINNEY & LANGE, P.A., INTELLECTUAL PROPERTY LAW FOR BUSINESS LAWYERS, § 3.4.2 (1996).

²² *General Information: Patent Cooperation Treaty*, *supra* note 16.

²³ Patent Cooperation Treaty, *supra* note 15, ch. I, art. 9.

²⁴ KINNEY & LANGE, *supra* note 21. “[I]nternational application means an application filed under this Treaty.” Patent Cooperation Treaty, *supra* note 15, art. 2.

²⁵ *See id.* ch. I, art. 4.

²⁶ *See id.* ch. I, art. 5.

²⁷ *See id.* ch. I, art. 6.

²⁸ *See id.* ch. I, art. 7.

²⁹ *Id.* ch. I, art. 3(2).

- (i) be in a prescribed language;
- (ii) comply with the prescribed physical requirements;
- (iii) comply with the prescribed requirement of unity of invention; and
- (iv) be subject to the payment of the prescribed fees.³⁰

“The international application shall be filed with the prescribed receiving Office” in order to allow proper processing and checking.³¹ “[T]he application is typically filed with the inventor’s national patent office (e.g., the U.S.P.T.O.), and that office, known as the receiving office, reviews the application to make sure it meets basic PCT requirements.”³² The filing date of the international application is “the date of receipt of the international application” as long as the Office finds the applicant’s nationality allows him the right to file an application, the application is in the proper language, and the application meets the required elements.³³

If the international application does not meet the requirements listed above, the receiving office shall “invite the applicant to file the required correction.”³⁴ “If the applicant complies with the invitation,” the receiving Office shall record, as the international filing date, “the date of receipt of the required correction.”³⁵ With respect to the filing of any national applications, as a result of an approved international application, the filing date of the international application “shall be considered to be the actual filing date in each designated State,”³⁶ as a result of the

³⁰ *Id.* ch. I, art. 3(4).

³¹ *Id.* ch. I, art. 10.

³² KINNEY & LANGE, *supra* note 21.

³³ Patent Cooperation Treaty, *supra* note 15, ch. I, art. 11(1). The international application must meet the following requirements:

- (a) an indication that it is intended as an international application,
- (b) the designation of at least one Contracting State,
- (c) the name of the applicant, as prescribed,
- (d) a part which on the face of it appears to be a description,
- (e) a part which on the face of it appears to be a claim or claims.

Id.

³⁴ *Id.* ch. I, art. 11(2)(a).

³⁵ *Id.* ch. I, art. 11(2)(b).

³⁶ *Id.* ch. I, art. 11(3).

international application serving as an equivalent to “a regular national filing within the meaning of the Paris Convention for the Protection of Industrial Property.”³⁷

A copy of the international application is available at any time for transmittal to any designated Office by request of that designated Office or by request of the applicant.³⁸ Upon receiving the international application, the receiving Office inspects the application for any further defects.³⁹ While certain defects allow the receiving Office to invite the applicant to correct the international application,⁴⁰ other defects such as failure to pay the prescribed fees or failure by the applicant to abide by the requirements listed in Article 11(1) of this Treaty render the international application withdrawn as declared by the receiving Office.⁴¹

C. Preliminary Searching and Examination

1. International Search

“Each international application shall be the subject of international search” by the International Searching Authority,⁴² with the objective of “discover[ing] relevant prior art.”⁴³ The international search makes a party, interested in applying for a patent, aware of similar patents already in existence that could cause problems in application for a patent.

³⁷ *Id.* ch. I, art. 11(4).

³⁸ *Id.* ch. I, art. 13.

³⁹ *Id.* ch. I, art. 14. The receiving office checks the application to decide whether:

- (i) it is not signed as provided in the Regulations;
- (ii) it does not contain the prescribed indications concerning the applicant;
- (iii) it does not contain a title;
- (iv) it does not contain an abstract;
- (v) it does not comply to the extent provided in the Regulations with the prescribed physical requirements.

Id.

⁴⁰ *Id.* ch. I, art. 14(1)(b). If drawings are not included, the receiving Office will notify the applicant that he may want to furnish them within the prescribed time limit. *Id.* ch. I, art. 14(2).

⁴¹ *Id.* ch. I, arts. 14(3)-(4); *see also* text accompanying note 33.

⁴² “[An International Searching Authority] may be either a national Office or an intergovernmental organization, such as the International Patent Institute, whose tasks include the establishing of documentary search reports on prior art with respect to inventions which are the subject of applications.” Patent Cooperation Treaty, *supra* note 15, ch. I, art. 16(1).

⁴³ *Id.* ch. I, arts. 15(1)-(2).

The international search results in the production of an international search report, “established within the prescribed time limit and in the prescribed form.”⁴⁴ The report must be “transmitted by the International Searching Authority to the applicant and the International Bureau,”⁴⁵ and must be translated “by or under the responsibility of the International Bureau.”⁴⁶ After receiving the international search report, the applicant is “entitled to one opportunity to amend the claims of the international application by filing amendments with the International Bureau within the prescribed time limit.”⁴⁷

Once the international search is complete, the international application, along with the international search report, “shall be communicated to each designated Office.”⁴⁸ The publication of each international application is completed by the International Bureau and must be done before the “expiration of eighteen (18) months from the priority date of that application.”⁴⁹ This process allows for a consistency and efficiency and gives prospective patent holders a multinational perspective on the novelty of their idea.

Confidentiality can be a concern for an applying party, but it is a concern that is taken care of for a party applying the process laid out by the PCT. Before the international publication of the application is complete, the International Bureau and the International Searching Authorities must keep the information contained in the international application confidential.⁵⁰

⁴⁴ *Id.* ch. I, art. 18(1).

⁴⁵ *Id.* ch. I, art. 18(2).

⁴⁶ *Id.* ch. I, art. 18(3). If no report is established, as prescribed by article 17(2)(a), the resulting declaration shall also be translated in the same fashion as the search report. *Id.*

⁴⁷ *Id.* ch. I, art. 19(1). “The amendments shall not go beyond the disclosure in the international application as filed,” unless the laws of the specific State permit amendments to go beyond the specified disclosure. *Id.* ch. I, arts. 19(2)-(3).

⁴⁸ *Id.* ch. I, art. 20(1)(a). Each designated Office may waive this requirement “in its entirety or in part.” *Id.*

⁴⁹ *Id.* ch. I, arts. 21(1)(a)-(b). If the application is withdrawn, “there shall be no international publication.” *Id.* ch. I, art. 21(5).

⁵⁰ *Id.* ch. I, art. 30(1)(a).

The National Office may not provide third parties access to the patent information unless by request and authorization of the applicant before the earliest of the following dates:

- (i) date of the international publication of the international application,
- (ii) date of the receipt of the communication of the international application under Article 20,⁵¹
- (iii) date of the receipt of a copy of the international application under Article 22.⁵²

Access is designated as “any means by which third parties may acquire cognizance, including individual communication and general publication.”⁵³

2. International Preliminary Examination

Another helpful tool that is made available by the PCT is the International Preliminary Examination (Examination). The Examination simply makes “sure [the application] meets basic P.C.T. requirements.”⁵⁴ Each international application is subject to an international preliminary examination “on the demand of the applicant.”⁵⁵ The examination “shall be carried out by the International Preliminary Examining Authority.”⁵⁶ “The objective of the international preliminary examination is to formulate a preliminary and non-binding opinion on the questions whether the claimed invention⁵⁷ appears to be novel,⁵⁸ to involve an inventive step, (to be non-

⁵¹ The international application, the international search report or the declaration must be “communicated to each designated Office, as provided in the regulations, unless the designated Office waives such requirement in its entirety or in part. *Id.* ch. I, art. 20(1)(a).

⁵² *Id.* ch. I, art. 30(2)(a).

The applicant shall furnish a copy of the international application (unless the communication provided for in article 20 has already taken place) and a translation thereof (as prescribed), and pay the national fee (if any), to each designated Office not later than at the expiration of 20 months from the priority date.

Id. ch. I, art. 22(1). The delivery requirement of 20 months differs from the 18 month requirement in article 20.

⁵³ *Id.* ch. I, art. 30(4).

⁵⁴ KINNEY & LANGE, *supra* note 21.

⁵⁵ Patent Cooperation Treaty, *supra* note 15, ch. II, art. 31(1). “The demand for international preliminary examination shall be made separately from the international application.” *Id.* ch., II art. 31(3).

⁵⁶ *Id.* ch. II, art. 32(1). Competent International Preliminary Examining Authority is specified by the receiving Office for demands referred to in article 31(2)(a) and the Assembly for demands referred to in article 31(2)(b). *Id.* ch. II, art. 32(2).

⁵⁷ For the purposes of the international preliminary examination, a claimed invention shall be considered industrially applicable if, according to its nature, it can be made or used (in the technological sense) in any kind

obviou),⁵⁹ and to be industrially applicable.”⁶⁰ All documents “cited in the international search report” are taken into consideration by the examination, as well as “any additional documents considered to be relevant in the particular case.”⁶¹

The report generated from the examination does *not* provide guidance with respect to the patentability or unpatentability of an invention according to any national law.⁶² The report is “the examining authority’s final position as to whether each claim is novel or involves an inventive step and is sent to the countries elected by the applicant when selecting Chapter II examination.”⁶³ The intention behind the report is “to help the applicant decide if sufficient patent protection is available to make it worthwhile to file applications in one or more of the elected countries.”⁶⁴ When dealing with intellectual property rights in living matter, the “circumstance of inventions that self-replicate and the difficulty of distinguishing what was made by man from what existed in nature”⁶⁵ creates another consideration the report must address.

Both the applicant and the International Bureau receive transmissions of the examination report with its prescribed annexes.⁶⁶ “If the invention is clearly not patentable, the report can save an applicant thousands of dollars in application filing fees,” but if the receipt of the

of industry. ‘Industry’ shall be understood in its broadest sense, as in the Paris Convention for the Protection of Industrial Property.

Id. ch. II, art. 33(4).

⁵⁸ “For the purposes of the international preliminary examination, a claimed invention shall be considered novel if it is not anticipated by the prior art as defined in the Regulations.” *Id.* ch. II, art. 33(2).

⁵⁹ “For the purposes of the international preliminary examination, a claimed invention shall be considered to involve an inventive step if, having regard to the prior art as defined in the Regulations, it is not, at the prescribed relevant date, obvious to a person skilled in the art.” *Id.* ch. II, art. 33(3).

⁶⁰ *Id.* ch. II, art. 33(1). This criterion “merely serve[s] the purposes of international preliminary examination. Any Contracting State may apply additional or different criteria for the purpose of deciding whether, in that State, the claimed invention is patentable or not.” *Id.* ch. II, art. 33(5).

⁶¹ *Id.* ch. II, art. 33(6).

⁶² *Id.* ch. II, art. 35(2).

⁶³ KINNEY & LANGE, *supra* note 21.

⁶⁴ *Id.*

⁶⁵ Robert L. Baechtold et al., *Property Rights in Living Matter: Is New Law Required?*, 68 DENV. U. L. REV. 141, 142 (1991).

⁶⁶ Patent Cooperation Treaty, *supra* note 15, ch. II art. 36(1).

examination report results in the applicant's desire to "file for patent protection in one or more of the elected countries, [the applicants] must do so within thirty months of the PCT filing date."⁶⁷

D. Examination in Individual Countries

Upon national application, if the national law of the contracting state so permits, the applicant may "request that a search similar to an international search be carried out on such application."⁶⁸ The national search must take place "within nineteen months of the PCT application's initial filing date."⁶⁹ In choosing to enter the national stage, the applicant "must file separate applications in one or more of the countries originally designated in the PCT application process."⁷⁰ "For examining purposes, the national stage applications are treated as if they were filed in the designated countries on the filing date of the PCT application."⁷¹

As stated above, by following Chapter II of the PCT the applicant receives a "written opinion from the international examining authority that discusses the novelty and inventive step of each claim."⁷² Coincidentally, the international preliminary examination report, written by the examining authority, "is not binding on any of the elected countries."⁷³ "Any Contracting State may apply additional or different criteria for the purpose of deciding whether, in that State, the claimed invention is patentable or not."⁷⁴

⁶⁷ KINNEY AND LANGE, *supra* note 21.

⁶⁸ Patent Cooperation Treaty, *supra* note 15, ch. I art. 15(5)(a).

⁶⁹ KINNEY & LANGE, *supra* note 21.

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² *Id.*

⁷³ *Id.*

⁷⁴ Patent Cooperation Treaty, *supra* note 15, ch. II, art. 33(5).

E. Results

An applicant can gain twenty to thirty additional months to “evaluate the value of his invention without risking the loss of patent rights” by applying the PCT process.⁷⁵ The PCT process also allows the applicant a “chance to judge the patentability of its invention without paying filing fees in multiple countries.”⁷⁶ “Accordingly, U.S. applicants frequently use a PCT application that claims priority from a U.S. application to preserve patent rights in foreign countries, while at the same time delaying the expense of foreign national applications until the value of the invention is established.”⁷⁷ The PCT also “provides for specific deadlines for prosecution of patent applications.”⁷⁸

The rapid expansion in use of the PCT System is astronomical with the number of member states utilizing the system reaching 115 (doubled in the last eight years), and the number of international applications growing from 2600 in 1979 to about 114,048 in 2002.⁷⁹ Those numbers do not include the extension of each application to more than one country, which represents “the equivalent of some 8.5 million national applications for inventions.”⁸⁰

⁷⁵ KINNEY AND LANGE, *supra* note 21.

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ IP STRATEGY, *supra* note 12. “The most important dates are:

(1) Priority filing date/PCT filing date;

(2) Sixteen months from the priority filing date, the PCT office issues a report of any prior art patents it discovered in its patent search;

(3) Eighteen months from the priority filing date, the PCT application is published;

(4) Nineteen months from the priority filing date, the applicant has the first opportunity to elect either to send the application to the individual national patent offices for examination and issuance, or to have the PCT office perform a Chapter II examination based on its patent search results;

(5) Thirty months from the priority date, the applicant must make the final election of designated countries in which the applicant seeks a national patent application.”

Id.

⁷⁹ *General Information: Patent Cooperation Treaty*, *supra* note 16.

⁸⁰ *Id.*