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Notifications Concerning Treaties

The Hague Agreement

Ratification of the Hague Act (1960) and Accession to the Stockholm (Complementary) Act (1967)

ITALY

The Government of Italy deposited, on May 11, 1987, its instrument of ratification of the Hague Agreement Concerning the International Deposit of Industrial Designs of November 6, 1925, as revised at The Hague on November 28, 1960 ("the Hague Act (1960)"), including the Protocol annexed thereto, as well as its instrument of accession to the Complementary Act of Stockholm of July 14, 1967, of the said Agreement ("Stockholm (Complementary) Act (1967)").

Italy has not heretofore been a member of the Union for the International Deposit of Industrial Designs ("Hague Union"), founded by the Hague Agreement.

Italy will become a member of the Hague Union, and the Hague Act (1960) will enter into force, in respect of that State, on June 13, 1987, whereas the Stockholm (Complementary) Act (1967) will enter into force, with respect to the said State, on August 13, 1987.

The date of entry into force of the Protocol annexed to the Hague Act (1960) will be notified when the required number of ratifications or accessions is reached in accordance with Article 32 of the said Act.

The Hague Notification No. 27, of May 13, 1987.

Budapest Treaty

Fees Charged by International Depository Authorities Within the United Kingdom (Value Added Tax Liability)

The Government of the United Kingdom has informed the Director General of WIPO by a communication of May 8, 1987, which was received on May 12, 1987, that following a review of the Value Added Tax liability on fees charged by international depository authorities within the United Kingdom, in accordance with Rule 12.1 of the Regulations under the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure, the Government of the United Kingdom have taken the view that for individuals and organizations within the United Kingdom only the charges for storage in accordance with the Treaty are zero-rated for Value Added Tax. For individuals and organizations outside the United Kingdom charges for storage, for the issuance of viability statements and for the provision and carriage of samples not owned by those individuals or organizations are zero-rated for Value Added Tax purposes. All other charges are liable to Value Added Tax at the standard rate.

Budapest Communication No. 34 (this Communication is the subject of Budapest Notification No. 60, of May 21, 1987).

WIPO Meetings

Paris Union

Committee of Experts on the Harmonization of Certain Provisions in Laws for the Protection of Inventions

Third Session
(Geneva, March 23 to 27, 1987)

I. NOTE*

Introduction

The Committee of Experts on the Harmonization of Certain Provisions in Laws for the Protection of Inventions (hereinafter referred to as "the Committee of Experts") held its third session¹ in Geneva from March 23 to 27, 1987. The following States were represented at the session: Algeria, Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, China, Colombia (observer), Côte d'Ivoire, Cuba, Democratic People's Republic of Korea, Denmark, Finland, France, Germany (Federal Republic of), Greece, Hungary, Ireland, Israel, Italy, Japan, Madagascar, Mexico, Morocco, Netherlands, Norway, Poland, Portugal, Republic of Korea, Soviet Union, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States of America, Uruguay, Venezuela (observer), Yugoslavia (41). In addition, representatives of two intergovernmental organizations and 26 non-governmental organizations participated in an observer capacity. The list of participants follows this Note.

The Committee of Experts considered 10 questions: three for the third time, four for the second time and three for the first time. It also considered the possibility of studying additional questions.

The three questions that had already been considered by the Committee of Experts in its first and second sessions (July 1985 and May 1986) concern: (i) the grace period for public disclosure of an invention before filing an application; (ii) the requirements in respect of the granting of a filing date to a patent application; and (iii) the requirements in respect of the naming of the inventor and in respect of evidence to be

furnished concerning the entitlement of the applicant. Explanations on the latter two questions (concerning the filing date and the naming of the inventor) were presented to the Committee of Experts in two memoranda prepared by the International Bureau and reproduced in full in *Industrial Property*, 1986, pp. 312 to 324. The first question (concerning the grace period), which, prior to the first session of the Committee of Experts, had already been considered by the Committee of Experts on the Grace Period for Public Disclosure of an Invention Before Filing an Application, was the subject of a memorandum prepared by the International Bureau, whose text was reprinted *in extenso* in *Industrial Property*, 1984, pp. 314 to 327.

The four questions that had already been considered by the Committee of Experts in its second session (May 1986) concern: (i) the requirements in respect of the manner of claiming in patent applications; (ii) the requirements in respect of unity of invention in patent applications; (iii) the extension of patent protection of a process to the products obtained by that process and proof of infringement of a process patent; and (iv) the prior art effect of previously filed but yet unpublished patent applications. The memoranda prepared by the International Bureau on these four questions will be reproduced in a future issue of *Industrial Property*.

The three questions considered by the Committee of Experts for the first time concern: (i) the requirements in respect of the manner of description of an invention in patent applications; (ii) the right to a patent where several inventors have made the same invention independently; and (iii) interpretation of patent claims. The memoranda prepared by the International Bureau on these three questions are reproduced in full at the end of this Note.

The Committee of Experts also considered additional possible questions to be studied within the framework of harmonization, in particular (i) exclusions from patent protection; and (ii) duration of patents.

* Prepared by the International Bureau.

¹ For Notes on the first and second sessions, see *Industrial Property*, 1985, p. 267, and 1986, p. 309.

The Committee of Experts had a general debate during which delegations from developing countries expressed reservations with respect to the intended scope of the harmonization project, whereas other delegations expressed their full support for it. The Committee then discussed the various questions submitted to it.

Manner of Description

As regards the *requirements in respect of the manner of description of an invention in patent applications*, reference is made to the principles of a solution presented by the International Bureau in document HL/CE/III/3 (reproduced at the end of this Note).

It was generally agreed that harmonization in this area was needed along the lines of the principles of a solution proposed. Several suggestions for the improvement of the proposal were made, in particular that paragraph (1) of Article 103, which contains the basic requirements proposed, be redrafted so as to set down maximum requirements with which a description would have to comply, which would mean that any description complying therewith would have to be accepted by all Contracting States, although any Contracting State would be free to accept descriptions complying with lesser requirements.

Several Inventors

The principle of a solution presented by the International Bureau in document HL/CE/III/4 (reproduced at the end of this Note), regarding the *right to a patent where several inventors have made the same invention independently*, is the following:

"Where two or more persons have made the same invention independently of each other, the right to a patent for the invention shall belong to the person whose application has the earliest filing date or, where priority is claimed, the earliest priority date."

In this regard, the Delegation of the United States of America stated that, as far as it was aware, its country was one of the three in the world which continued to use the first-to-invent system rather than the first-to-file system. The Delegation stated that it had looked at the proposal of the International Bureau (for the adoption of the first-to-file principle). On the basis that this proposal would be part of an overall harmonization package, the Delegation was favorably inclined to consider the proposal, but it would need to be part of a balanced harmonization package in which other matters were addressed. That statement was welcomed by a number of delegations.

Interpretation of Claims

As regards the *interpretation of claims*, reference is made to the principles of a solution presented by the

International Bureau in document HL/CE/III/5 (reproduced at the end of this Note).

A number of remarks and proposals were made with respect to most of the said principles, and it was agreed that the latter would be reviewed in the light of their discussions.

Filing Date

The draft prepared by the International Bureau regarding the *requirements for granting a filing date*, as it appears in document HL/CE/III/2, is the following:

"(1) For the purposes of granting a filing date to an application, any national law shall require that the application contain at least the following elements:

- (i) an express or implicit indication that the granting of a patent is sought;
- (ii) an identification of the applicant, as prescribed;
- (iii) a part which, on the face of it, appears to be a description.

"(2)(a) Subject to subparagraph (b), for the purposes of granting a filing date to an application, any national law shall be free to require, in addition to the requirements laid down in paragraph (1).

(i) that the application contain a part which, on the face of it, appears to be a claim or claims;

(ii) that the application be filed in a certain language or in one of certain languages.

(b) Where the national law of a Contracting State contains, at the time of becoming party to this Treaty, any of the requirements referred to in subparagraph (a), the Contracting State shall be free to repeal any such requirement at any time thereafter. Any requirement referred to in subparagraph (a) not provided for in the national law of a Contracting State at the time that State becomes party to this Treaty shall not thereafter be introduced in the national law, and any requirement referred to in subparagraph (a) which, at the time a State becomes party to this Treaty, was provided for in the national law of that State but which was thereafter repealed, shall not be reintroduced in the national law of the said State.

(c) At the time of becoming party to this Treaty, any Contracting State whose national law contains any of the requirements referred to in subparagraph (a) shall notify the Director General accordingly. The repeal of any such requirement in the national law shall be promptly notified in the same manner. The provisions of this subparagraph shall not apply to any such requirement contained in a treaty providing for the grant of regional patents.

"(3) No requirements in respect of granting a filing date that are additional to or different from those set forth in the preceding paragraphs shall be allowed, with the exception of the requirement, in any treaty providing for the grant of regional patents, that an application for a regional patent contain the designation of at least one State party to that treaty."

Although several specific points were discussed, the most important part of the discussion centered on the suggestion to reformulate the proposal. The question of whether applications which did not contain a description but merely made reference to an application previously filed elsewhere should be sufficient for granting a filing date gave rise to a re-examination of the basic formulation of Article 101. Several Delegations were of the opinion that a distinction should be drawn between a first filing and a subsequent filing, with Article 101 establishing a list of absolute requirements which national laws would be obliged to adopt for the granting of a filing date to first filings and permitting

countries to adopt more lenient requirements in respect of subsequent filings. It was finally agreed that the International Bureau of WIPO would study those issues and take into account the various opinions expressed during the session in that respect, in order to formulate the next version of its proposal.

As concerns the specific points discussed, it was suggested that the case of drawings referred to, but not included, in the application should be covered by adopting the solution provided for in Article 14(2) of the Patent Cooperation Treaty (PCT).

It was agreed that, as now drafted, Article 101 permitted industrial property offices to require that applications be filed in documentary form without, however, preventing other industrial property offices from accepting electronic applications if they so wished.

Naming of Inventor

As regards the *naming of the inventor and the declaration concerning entitlement by the applicant*, it was recommended that these questions should not be further pursued for the time being.

Manner of Claiming

The draft prepared by the International Bureau regarding the *manner of claiming*, as it appears in document HL/CE/III/2, is the following:

"(1) An application shall contain one or more claims. The claim or claims shall define the matter for which protection is sought. The claim or claims shall be clear and concise, and shall be supported by the description.

"(2) The definition of the matter for which protection is sought shall be in terms of the technical features of the invention...."

The above draft provision for the proposed Treaty would be supplemented by a rule whose draft is as follows:

"(1) If there are several claims, they shall be numbered consecutively in arabic numerals.

"(2)(a) Whenever appropriate, claims may contain:

(i) a statement indicating those technical features of the invention which are necessary for the definition of the claimed subject matter, whether or not those features are part of the prior art;

(ii) a characterizing portion—preceded by the words 'characterized in that,' 'characterized by,' 'wherein the improvement comprises,' or any other words to the same effect—stating concisely the technical features which, in combination with the features stated under (i), it is desired to protect.

(b) The national law may prescribe that claims shall not, except where absolutely necessary, rely, in respect of the technical features of the invention, on references to the description or drawings, particularly not on such references as: 'as described in part ... of the description,' or 'as illustrated in figure ... of the drawings.'

(c) The claims shall not contain drawings but may contain chemical or mathematical formulae and/or, if desirable, tables.

(d) If the application contains drawings, the technical features mentioned in the claims shall preferably, if the intelligibility of the

claim can thereby be increased, be followed by reference signs relating to those features and preferably placed between parentheses. Such reference signs shall not be construed as limiting the claim.

"(3) Any claim which does not include all the features of one or more other claims shall be referred to hereinafter as 'independent claim.' An independent claim may refer to one or more other claims.

"(4)(a) Any claim which includes all the features of one or more other claims shall be referred to hereinafter as 'dependent claim' or 'multiple dependent claim' depending on whether it refers to one or more other claims. It shall contain, if possible at the beginning, a reference to the other claim or claims and shall then state the additional features claimed.

(b) Dependent claims or multiple dependent claims may depend on independent claims, dependent claims or multiple dependent claims.

(c) A dependent claim shall be construed as including all the features contained in the claim to which it refers, and a multiple dependent claim shall be construed as including all the features contained in the claim or claims to which it refers and in relation to which it is considered.

(d) All dependent claims referring to a single other claim, and all multiple dependent claims referring to several other claims, shall be grouped together in the most practical way possible.

(e) A dependent claim or a multiple dependent claim may set forth features which in themselves constitute an invention.

"(5) Where any requirement prescribed in Article 104 or in this Rule is not complied with, the applicant shall be given an opportunity to amend the application, except where Article 101(2)(a)(i) applies and the application does not contain any part which, on the face of it, appears to be a claim or claims."

The draft was generally considered satisfactory, subject to several detailed and technical suggestions. In particular, it was agreed that the Rule should be revised, the definition of dependent and independent claims should be reviewed and the question of claims in multiple dependent form should be further studied.

Unity of Invention

The draft prepared by the International Bureau regarding *unity of invention*, as it appears in document HL/CE/III/2, is the following:

"(1) An application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept ('requirement of unity of invention').

"(2) The requirement of unity of invention shall be construed as permitting the inclusion in the same application:

(i) of claims of different categories, to the extent prescribed in the Regulations;

(ii) of claims of the same category, to the extent prescribed in the Regulations;

(iii) of dependent claims and of multiple dependent claims, even where the features of a dependent claim or of a multiple dependent claim constitute in themselves an invention.

"(3) Failure to comply with the requirement of unity of invention shall not be a ground for invalidation or revocation of a patent.

The above draft provision for the proposed Treaty would be supplemented by a rule whose draft is as follows:

"(1) The requirement of unity of invention shall be deemed to be complied with where the following combinations of claims of different categories are included in the same application:

(i) the combination of an independent claim for a given product with:

(a) an independent claim for a process for, or also for, the manufacture of the said product (combination A + B);

(b) an independent claim for a use of the said product (combination A + C);

(c) an independent claim for a process for, or also for, the manufacture of the said product, and an independent claim for a use of the said product (combination A + B + C);

(d) an independent claim for a process for, or also for, the manufacture of the said product, and an independent claim for a means for, or also for, carrying out the said process (combination A + B + D);

(e) an independent claim for a process for, or also for, the manufacture of the said product, an independent claim for a means for, or also for, carrying out the said process, and an independent claim for a use of the said product (combination A + B + D + C);

(ii) the combination of an independent claim for a given process with an independent claim for a means for, or also for, carrying out the said process (combination B + D).

"(2) If the requirement of unity of invention is complied with in a given case, the following combinations, in particular, of claims of different categories can be included in the same application:

(i) the combination of an independent claim for a given product with:

(a) an independent claim for a use of the said product, and an independent claim for a means for, or also for, carrying out the said use (combination A + C + E);

(b) an independent claim for a process for, or also for, the manufacture of the said product, an independent claim for a use of the said product, and an independent claim for a means for, or also for, carrying out the said use (combination A + B + C + E);

(c) an independent claim for a process for, or also for, the manufacture of the said product, an independent claim for a means for, or also for, carrying out the said process, an independent claim for a use of the said product, and an independent claim for a means for, or also for, carrying out the said use (combination A + B + D + C + E);

(ii) the combination of an independent claim for a use of a product with an independent claim for a means for, or also for, carrying out the said use (combination C + E).

"(3) The order in which the claims appear in any of the combinations referred to in paragraph (1) or paragraph (2) may be different from the order used in those paragraphs.

"(4) If the requirement of unity of invention is complied with in a given case, claims of the same category can be included in the same application.

"(5) Guidelines in respect of the requirement of unity of invention shall be laid down in Guidelines Concerning Unity of Invention."

A majority expressed general agreement, in principle, with the definition of unity of invention contained in Article 105. It was agreed that the question of the need to include a provision on divisional applications should be studied by the International Bureau and that Article 105 should, if necessary, be amended accordingly. A detailed discussion of the Rule corresponding to Article 105 was postponed until the next session of the Committee of Experts in order to allow all interested delegations to take note of the comparative study on unity of invention prepared by the European Patent Office within the framework of the trilateral cooperation among that Office and the Japanese Patent Office and the United States Patent and Trademark Office.

Grace Period

As regards the *grace period*, the Committee of Experts discussed both the proposal by the International Bureau and a proposal submitted by Denmark, supported by Finland, Iceland, Norway and Sweden.

The draft prepared by the International Bureau appearing in document HL/CE/III/2 reads as follows:

"(1) A patent shall not be refused or held invalid under any national law by virtue of the fact that a disclosure was made which may affect the patentability of the invention that is the subject of an application for that patent or of that patent, provided that the said disclosure was made:

(i) by the inventor, or

(ii) by a third party, other than an industrial property office, based on information obtained from, or in consequence of acts performed by, the inventor, or

(iii) by an industrial property office in the form of an official publication, pursuant to an application filed without the consent of the inventor and based on information obtained from, or in consequence of acts performed by, the inventor, and provided that the said disclosure occurred not more than 12 months before the date on which the application was filed or, where priority is claimed, before the priority date.

"(2) For the purposes of paragraph (1), 'inventor' also means a co-inventor or the co-inventors as well as any natural person or legal entity other than the inventor who or which is entitled to the grant of a patent for the invention at the date of the application, such as his successor in title or an employer automatically entitled to the invention, and 'third party' means any natural person or legal entity other than the inventor as defined in this paragraph.

"(3) For the purposes of paragraph (1), 'disclosure' means public disclosure by written or oral means, or by use or in any other way.

"(4) The provisions of this Article shall not affect any right, existing under the applicable national law, of exploiting an invention for which a patent has been granted, by a natural person or legal entity other than the owner of the patent, on the basis of the fact that the invention has been made independently from the invention mentioned under paragraph (1) and worked prior to the date on which the application was filed or, where priority is claimed, the priority date, or on the basis of preparations for such working."

The proposal by the Nordic countries appearing in document HL/CE/III/6 reads as follows:

"(1) A patent shall not be refused or held invalid under any national law by virtue of the fact that a disclosure was made which may affect the patentability of the invention that is the subject of an application for a patent or of a patent, provided that the said disclosure was made:

(i) *by the inventor, or a person acting on his behalf, when he was carrying out experiments or tests of the invention, if reasonable measures had been taken to keep the invention secret; or*

(ii) *by a third party, including an industrial property office, based on information obtained from, or in consequence of acts performed by, the inventor, if the third party was under an obligation to keep the invention secret or if the information had been obtained by an unlawful appropriation,*

and provided that the said disclosure occurred not more than six months before the date on which the application was filed or, where priority is claimed, before the priority date.

"(2) For the purposes...."

The majority of delegations and organizations which expressed themselves supported the idea of a general grace period and expressed their preference, at least in principle, even if they had reservations on certain details, for the draft prepared by the International Bureau and suggested that the discussion continue on the basis of that draft. They preferred a general grace period because they found it to be simple and more practical to apply, with fewer legal uncertainties, than the kind of limited grace period proposed by the Nordic delegations, and, in most respects, considered the draft by the International Bureau acceptable.

Prior Art

The draft prepared by the International Bureau regarding the *prior art effect of applications*, as it appears in document HL/CE/III/2, is the following:

"(1) The whole contents of an application as filed in, or with effect for, a Contracting State shall, for the sole purpose of determining the novelty, but not the inventive step, of an invention claimed in another application filed in, or with effect for, that State, be considered under the national law applicable in the said State as prior art from the date on which the former application was filed or, to the extent priority is validly claimed, from the priority date for matter contained in both the former application and the application on which the priority claim is based, to the extent that the former application or the patent granted thereon is published subsequently.

"(2) For the purposes of paragraph (1), 'published' shall mean any first act of making available of the application to the public by reason of an official act, including any making available of the application to the public for purposes of public inspection without reproduction of the application, whether such act occurs prior to or by reason of the grant of a patent on that application.

"(3) For the purposes of paragraph (1), 'whole contents' of an application shall refer to the description and any drawings, as well as the claims, but not to the abstract.

"(4) Paragraph (1) shall not apply to applications which were withdrawn prior to their publication but which were nevertheless published.

"[5] Paragraph (1) shall not apply when the applicant of the former application and the applicant of the application under examination is one and the same person.]"

The draft was discussed and, in general, was considered acceptable to all delegations and organizations, including the Delegation of the United States of America, for whom agreement to the principle set down in Article 202 would mean the abandonment of the practice established *In re Hilmer*. Four points received particular attention: first, the question of what conditions should be fulfilled for international applications under the PCT to be taken into account as prior art, with a retroactive effect to the filing or priority date (i.e., international publication, entry into the national phase before the designated Office or certain other specified requirements); second, the question of what "whole contents" of the former application were meant to constitute prior art for the purposes of Article 202; third, the problem of published applications which had been withdrawn prior to publication; and, last, the question of whether or not Article 202 should apply not only in the case of identity of the applicants of the former and later applications but also in the cases of identity of inventors where applications are not filed by inventors or identity between an inventor and an applicant.

With respect to the first and fourth points, opinions remained divided. With respect to the second point, it was agreed that "whole contents" for prior art purposes were those which were contained in the application as published and not as filed if the application was later amended before publication. As regards the third point, the great majority of delegations and organizations agreed with the proposal of the International Bureau that a withdrawn application, even if published, no longer constituted an application, as such, for purposes

of its retroactive prior art effect to its filing or priority date.

Process Patents

The draft prepared by the International Bureau regarding the *extension of process patent protection to products and reversal of the burden of proof*, as it appears in document HL/CE/III/2, is the following:

"(1)(a) If the subject matter of a patent is a process, the protection conferred by the patent, under any national law, shall extend to products directly obtained by the said process, even if for such products patents are not available.

(b) The acts of importing and distributing the product directly obtained by the patented process shall be covered by the protection referred to in subparagraph (a).

"(2)(a) If the subject matter of the patent is a process for obtaining a new product, the said product, when produced by any party other than the owner of the patent, shall, under any national law, in the absence of proof to the contrary, be deemed to have been obtained by the patented process.

(b) In the adduction of proof to the contrary, the legitimate interests of the defendant in protecting his manufacturing and business secrets shall be taken into account.

(c) Any Contracting State shall be free to apply subparagraphs (a) and (b) also to the case where the product obtained by the process is not new."

The Committee of Experts took note of the reservations made by certain delegations and recommended that the further discussion of the questions should be based on Article 303, with any appropriate amendments in the light of the discussions by the Committee of Experts, such as, in particular, the deletion of paragraph (2)(c) regarding products obtained by a process that was not new, on the understanding that any State would be free to have a corresponding provision in its national law.

Other Questions

Consideration was also given to the studies submitted by the International Bureau on *exclusions from patent protection* and on *duration of patents*, with a view to evaluating whether these were areas where proposals for harmonization could be made. The Committee of Experts took note of the reservations of certain delegations. As regards the first study, it agreed that a revised version of that study be prepared for its next session. As regards the second study, it was agreed to revise it so as to also cover the question of maintenance fees for patent applications and for patents, as well as the question of rights conferred before the grant of a patent.

Finally, the Committee of Experts discussed the possibility of the International Bureau also studying the question of abstracts and the question of *restitutio in integrum* where the 12-month limit for claiming priority under Article 4 of the Paris Convention could not be met.

LIST OF PARTICIPANTS**

I. States

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II. Observer States

Colombia: L.A. Luna. Venezuela: H.C. Azocar.

III. Intergovernmental Organizations

Commission of the European Communities (CEC): S. Keegan. European Patent Office (EPO): G.D. Kolle; A.G. Rémond; R. Teschemacher.

IV. Non-Governmental Organizations

American Bar Association (ABA): L.B. Mackey. American Intellectual Property Law Association (AIPLA): R.C. Kline; H.C. Wegner; D.S. Chisum. Asian Patent Attorneys Association (APAA): I. Shamoto; N. Ogawa. Bundesverband der Deutschen Industrie e.V. (BDI): H. Goldrian. Committee of National Institutes of Patent Agents (CNIPA): R.C. Petersen; J. Beier. Deutsche Vereinigung für Gewerblichen Rechtsschutz und Urheberrecht e.V. (DVGR): H. Goldrian. European Council of Chemical Manufacturers' Federations (CEFC): J.-M. Devos; G. Tasset. European Federation of Agents of Industry in Industrial Property (FEMIP): S. Smith-Meyer; J. Brullé; G. Tasset. Intellectual Property Owners, Inc. (IPO): H.C. Wamsley. Institute of Professional Representatives Before the European Patent Office: J.-F. Léger. Inter-American Association of Industrial Property (ASIPI): D. Merrylees. International Association for the Protection of Industrial Property (AIPPI): M. Santarelli; T. Palagyi. International Chamber of Commerce (ICC): H. Goldrian; J.M.W. Buraas. International Confederation of Free Trade Unions (ICFTU): G. Ryder. International Federation of Industrial Property Attorneys (FICPI): K. Raffnsøe; J. Beier; G. Schmitt-Nilson. International Federation of Inventors' Associations (IFIA): C.P. Feldmann; K.E. Sundström; G. Bélanger. International Federation of Pharmaceutical Manufacturers Associations (IFPMA): R.A. Armitage. International League for Competition Law (LIDC): J.-F. Léger. International Patent and Trademark Association (IPTA): W.S. Thompson. Japanese Patent

Attorneys Association (JPAA): T. Yamaguchi. Licensing Executives Society (International) (LES): C.G. Wickham. Pacific Industrial Property Association (PIPA): P.D. Carmichael. The Chartered Institute of Patent Agents (CIPA): R.C. Petersen. The New York Patent, Trademark and Copyright Law Association, Inc. (NYPTC): S. Helfgott. Union of European Practitioners in Industrial Property (UEPIP): R. Goetz. Union of Industries of the European Community (UNICE): H. Goldrian; J. Brullé.

V. Officers

Chairman: J.-L. Comte (Switzerland). Vice-Chairmen: V. Belov (Soviet Union); P. Verdoux (Madagascar). Secretary: L. Baeumer (WIPO).

VI. International Bureau of WIPO

A. Bogsch (Director General); A. Schäfers (Deputy Director General); L. Baeumer (Director, Industrial Property Division); B. Bartels (Head, PCT Legal Section); J. Quashie-Idun (Head, Developing Countries Section, Industrial Property Division); A. Ilardi (Senior Legal Officer, Industrial Property Law Section, Industrial Property Division); H. Lom (Senior Legal Officer, Industrial Property Law Section); Y. Takagi (Associate Officer, Industrial Property Law Section); C. Rogers (Consultant, Industrial Property Division); M. Weil-Guthmann (Consultant, Industrial Property Division); D. Vincent (Consultant).

* * *

II. REQUIREMENTS IN RESPECT OF MANNER OF DESCRIPTION OF INVENTION IN PATENT APPLICATIONS

(HL/CE/III/3)

Memorandum by the International Bureau of WIPO

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I. Introduction

1. Under national laws and international treaties on the protection of inventions, the applicant must provide in the patent application a description of the invention.¹

** A list containing the titles and functions of the participants may be obtained from the International Bureau of WIPO.

¹ The question whether drawings must be provided in a patent application is not dealt with in the present study.

2. The patent system finds its origin in the old established need for transfer of technology. As a *quid pro quo* for temporary protection for new industries based on new technology, the introducer of such technology was required to train others in its use and this developed into a requirement to describe the new technology and how it is to be put into practice.

3. This is the basis of the present-day requirement to provide a description of the invention which is sufficiently clear and complete for the invention to be carried out by a person skilled in the art.

4. However, in the applicant's interest it is not enough to provide a description of the invention simply as he conceived it or how he puts it into practice.

5. This is because an essential purpose served by the description is to provide a basis for the claims by means of which the scope of protection to be provided by the patent is defined. As explained in the studies on the manner of claiming (see document HL/CE/III/2 Supp. 1) and on the interpretation of claims (see document HL/CE/III/5), the extent of protection provided by the patent is determined by the claims, but the claims must be supported by the description and the description, as well as any associated drawings it refers to, may be used to interpret the claims.

6. Consequently, the description serves a technical purpose in transferring technology and also serves a legal purpose in providing a basis for interpreting the claims in order to determine the scope of the protection to be provided by the patent.

7. Since patent applications for important inventions are usually filed in many countries, it would be advantageous if the requirements of different countries in respect of manner of description of invention could be harmonized so that a description drafted to meet the requirements of one country would meet, after any necessary translation, the requirements of other countries.

8. This would simplify, make cheaper and promote the use of the patent system.

II. Purpose of the Memorandum

9. The purpose of this memorandum² is:

- (i) to examine and to compare the requirements of manner of description of inventions in different countries and the guidance at present laid down in international treaties such as the Patent Cooperation Treaty (PCT), the European Patent Convention (EPC), the Convention on the Unification of Certain Points of Substantive Law on Patents for Invention (Strasbourg Convention) and the Agreement on the Unification of Requirements for the Execution and Filing of Applications for Inventions (Leipzig Agreement);
- (ii) to examine the purpose of the description of the invention;
- (iii) to propose possible harmonized requirements of manner of description.

10. Since the description is usually intended to be read by a "person skilled in the art," the adequacy of the description for enabling the reader to carry out the invention as described will depend on the level of competence of that "person."

11. Consequently, another purpose of this memorandum is to examine the meaning to be given to "person skilled in the art" and his required level of competence by way of skills, experience and common general knowledge.

III. Existing Legislative Provisions

A. Information Used in the Present Memorandum

12. Before proposing any uniform solution, it may be useful to examine the requirements under existing laws in respect of the manner of description of inventions. For this purpose, the following information has been taken into account:

- (i) the provisions of the PCT;
- (ii) the provisions of the EPC;
- (iii) the provisions of the Strasbourg Convention;
- (iv) the provisions of the Leipzig Agreement;
- (v) the legislation (laws, regulations, etc.) of those eight countries in or for which, according to the statistics published by WIPO (IP/STAT/1983/B), more than 10,000 titles of protection for inventions were granted in 1983. Those countries are Canada (20,999), France (25,043), Germany (Federal Republic of) (20,913), Japan (54,701), the Soviet Union (74,200), Switzerland (11,768), the United Kingdom (28,254) and the United States of America (56,862). The figures indicate the number of patents granted in 1983, except in the case of the Soviet Union, where they indicate the total number of patents and inventors' certificates granted in said year.

13. In general, the present memorandum is based on legislative provisions (treaties, laws, regulations, etc.) and does not take into account the interpretation given to the said provisions by courts and industrial property offices or the practice of industrial property offices. The present memorandum presents only a short summary of the said provisions; the summaries have not been verified by the industrial property offices concerned.

B. The Patent Cooperation Treaty (PCT)

14. In establishing the PCT, an objective of the Contracting States was "to simplify and render more economical the obtaining of protection for inventions where protection is sought in several countries" (Preamble of the PCT).

15. To this end the PCT provides a system of filing one international patent application which, in the Contracting States, will be equivalent to a regular national filing within the meaning of the Paris Convention for the Protection of Industrial Property (Article 11(4) of the PCT).

16. According to Article 5 of the PCT, "The description shall disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art." The manner of description is prescribed in detail in Rule 5.1 of the Regulations under the PCT according to which:

"(a) The description shall first state the title of the invention as appearing in the request and shall:

- (i) specify the technical field to which the invention relates;
- (ii) indicate the background art which, as far as known to the applicant, can be regarded as useful for the understanding, searching and examination of the invention, and, preferably, cite the documents reflecting such art;
- (iii) disclose the invention, as claimed, in such terms that the technical problem (even if not expressly stated as such) and

² Prepared by the International Bureau with the help of Mr. D. Vincent (United Kingdom) as consultant.

its solution can be understood, and state the advantageous effects, if any, of the invention with reference to the background art;

(iv) briefly describe the figures of the drawings, if any;

(v) set forth at least the best mode contemplated by the applicant for carrying out the invention claimed; this shall be done in terms of examples, where appropriate, and with reference to the drawings, if any; where the national law of the designated State does not require the description of the best mode but is satisfied with the description of any mode (whether it is the best contemplated or not), failure to describe the best mode contemplated shall have no effect in that State;

(vi) indicate explicitly, when it is not obvious from the description or nature of the invention, the way in which the invention is capable of exploitation in industry and the way in which it can be made and used or, if it can only be used, the way in which it can be used; the term "industry" is to be understood in its broadest sense as in the Paris Convention for the Protection of Industrial Property.

(b) The manner and order specified in paragraph (a) shall be followed except when, because of the nature of the invention, a different manner or a different order would result in a better understanding and a more economic presentation.

(c) Subject to the provisions of paragraph (b), each of the parts referred to in paragraph (a) shall preferably be preceded by an appropriate heading as suggested in the Administrative Instructions."

17. The Guidelines for International Preliminary Examination to be Carried Out Under the PCT (hereinafter referred to as "the PCT Guidelines") contain in Chapter II, paragraph 4.1, an explanation of the purposes of PCT Rule 5; one of those purposes is to ensure that the international application contains all technical information required to enable a person skilled in the art to put the invention into practice. For the meaning of "person skilled in the art," reference is made to Chapter IV, paragraph 8.6, which contains the following provision in respect of the competence required of the person skilled in the art: "The person skilled in the art should be presumed to be an ordinary practitioner aware of what was common general knowledge in the art at the relevant date. He should also be presumed to have had access to everything in the 'prior art,' in particular, the documents cited in the international search report, and to have had at his disposal the normal means and capacity for routine experimentation. There may be instances where it is more appropriate to think in terms of a group of persons, e.g., a research or production team, than a single person. This may apply, e.g., in certain advanced technologies such as computers or telephone systems and in highly specialized processes such as the commercial production of integrated circuits or of complex chemical substances."

18. The importance of the description is emphasized by Article 6 of the PCT which reads: "The claim or claims shall define the matter for which protection is sought. Claims shall be clear and concise. *They shall be fully supported by the description*" (emphasis added).

C. The European Patent Convention (EPC)

19. In the EPC the statutory requirements for the description in Article 83 are the same as those of Article 5 of the PCT.

20. Rule 27 of the Implementing Regulations to the EPC, which relates to the content of the description, reads as follows:

"(1) The description shall:

(a) first state the title of the invention as appearing in the request for the grant of a European patent;

(b) specify the technical field to which the invention relates;

(c) indicate the background art which, as far as known to the applicant, can be regarded as useful for understanding the invention, for drawing up the European search report and for the examination, and, preferably, cite the documents reflecting such art;

(d) disclose the invention, as claimed, in such terms that the technical problem (even if not expressly stated as such) and its solution can be understood, and state any advantageous effects of the invention with reference to the background art;

(e) briefly describe the figures in the drawings, if any;

(f) describe in detail at least one way of carrying out the invention claimed using examples where appropriate and referring to the drawings, if any;

(g) indicate explicitly, when it is not obvious from the description or nature of the invention, the way in which the invention is capable of exploitation in industry.

(2) The description shall be presented in the manner and order specified in paragraph (1), unless because of the nature of the invention, a different manner or a different order would afford a better understanding and a more economic presentation."

21. The assumed characteristics of the "person skilled in the art" are explained in Part C, Chapter II, paragraph 4.1, through a reference to Chapter IV, paragraph 9.6, of the Guidelines for Examination in the EPO (hereinafter referred to as "the EPO Guidelines"); paragraph 9.6 is practically identical with the wording of the PCT Guidelines (see paragraph 17, above).

22. Article 69 of the EPC states that the description and drawings must be used to interpret the claims.

23. Article 84 of the EPC in requiring the claims to be supported by the description corresponds to Article 6 of the PCT.

D. The Convention on the Unification of Certain Points of Substantive Law on Patents for Invention (Strasbourg Convention)

24. In the Strasbourg Convention the requirements for the description are given in Article 8(2): "The description must disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art." In Article 8(3) there is a reference to the function of the description in interpreting the claims.

E. The Agreement on the Unification of Requirements for the Execution and Filing of Applications for Inventions (Leipzig Agreement)

25. The Leipzig Agreement in Rule 3 under the Agreement contains details concerning the manner of description as follows:

"A description of the invention must have the following structure:

(a) the title of the invention and the class in the International Patent Classification to which, in the opinion of the applicant, it belongs; the title of the invention must be identical to the title given in the request;

(b) the technical field to which the invention relates and information on objects in which it can or should be applied;

(c) characteristics of known technical solutions with the indication of their shortcomings which are remedied by the invention, improvements introduced by the invention as

compared with already known solutions, and a list of sources which give descriptions of known technical solutions;

(d) an outline of the substance of the invention which must begin with the indication of the technical problem to be solved by the invention.

The description of the invention characterized in the claims must be sufficiently detailed for the substance of the invention to be understood and the invention to be put into practice.

If an invention is illustrated by drawings, there must be a list of figures, with a brief explanation concerning each of them.

A description of the invention must, depending on its nature, meet the following requirements:

— the device must be described in a static condition and then must be described when in action;

— the description of a method must contain an enumeration of techniques (operations) and an explanation of the sequence and regimes (temperature, pressure, etc.) and of the realization of these techniques;

— the description of a substance must include its characteristics and an enumeration of the ingredients (composition of the substance), and the proportions (extreme values) in percentages (from ... to ...) in which the ingredients are contained in the substance; it is also necessary to indicate the physical state and initial qualities of these ingredients, as well as the evidence of the structure and of the properties of the end product;

(e) examples of how the invention can be implemented; the applicant should indicate the most practical, in his opinion, method of implementation of the invention, special uses to which it can be put and its specific advantages; the number and types of the examples must be selected so as to cover the whole scope of the invention;

(f) if the description or nature of the invention does not indicate how the invention can be implemented in industry, this must be expressly specified.

It is recommended that a description of the invention follow the order of the above-mentioned paragraphs and have headings to its different parts."

F. National Legislation

26. *Canada.* Section 36(1) of the Patent Act, 1952, as amended up to 1972, requires that the applicant must in the specification correctly and fully describe the invention and its operation or use as contemplated by the inventor, and set forth clearly the various steps in a process, or the method of constructing, making, compounding or using a machine, manufacture or composition of matter, in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most closely connected, to make, construct, compound or use it; in the case of a machine he must explain the principle thereof and the best mode in which he has contemplated the application of that principle; in the case of a process he must explain the necessary sequence, if any, of the various steps, so as to distinguish the invention from other inventions.

27. In the case of chemical inventions involving a group of like substances the description need not include the preparation or testing of each member of the group to be claimed if it is reasonably possible to make a prediction as to the usefulness of all of them.

28. The specification is considered to be addressed to a hypothetical person possessing the ordinary skill and knowledge of the particular art to which the invention relates and possessing a mind willing to understand. The level of technical skill assumed will therefore vary from case to case.

29. In judicial decisions it has been held that the description must not contain any false, erroneous or misleading statements calculated to deceive or mislead the person reading it or make it difficult for him to perform the invention without undue trial or experiment.

30. The other function of the description, i.e., its relation to the claims, is set out in Section 25 of the Patent Rules, which provides that every claim must be fully supported, by the disclosure and that a claim must not be allowed unless the disclosure describes all the characteristics of an embodiment of the invention that are set out in the claim.

31. *France.* The Patent Law of 1968, as last amended and supplemented in 1978, requires in Section 14*bis* disclosure of the invention in the same terms as Article 5 of the PCT and Article 83 of the EPC.

32. The Decree on Applications for Patents and Utility Certificates and the Grant and Maintenance in Force of Such Titles reflects in Section 9 the provisions of Rule 27 of the EPC Regulations on content of description.

33. Section 28(1) of the Patent Law repeats the provision of Article 69 of the EPC that the description and drawings must be used to interpret the claims.

34. Section 14*ter* of the Patent Law repeats the provision of Article 6 of the PCT and Article 84 of the EPC that (*inter alia*) the claims must be supported by the description.

35. *Germany (Federal Republic of).* The provisions of Article 5 of the PCT and Article 83 of the EPC are incorporated in the Patent Law of 1981 in Section 35(2).

36. Rule 5 of the Order Concerning Patent Applications of 1981 incorporates substantially the provisions of Rule 27 of the EPC Regulations on content of description except that there is a positive requirement for disclosure of the technical problem to be solved by the invention.

37. Section 14 of the Patent Law repeats the provision of Article 69 of the EPC that the description and drawings must be used to interpret the claims.

38. Neither the Patent Law nor the Order contains an express provision that the claims must be supported by the description. However, it can be deduced from the Guidelines for Examination (1981) that in practice this is a requirement in the substantive examination of the application in the German Patent Office.

39. *Japan.* Section 36(2) of the Patent Law of 1959, as last amended in 1985, requires that the application include a detailed explanation of the invention which, according to Section 36(3), must state the purpose, constitution and effect of the invention in such a manner that it may easily be carried out by a person having ordinary skill in the art to which the invention pertains.

40. The Japanese Patent Office has issued and maintains general standards on requirements of disclosure in an application which relate to the object of the invention, to the constitution or structure of the invention and to the advantages and effects of the invention.

41. The object of the invention is stated by presenting the problem to be solved by the invention and the industrial field in which the invention is to be utilized, comparing the same with the prior art.

42. The constitution or structure of the invention is stated by disclosing the means employed to solve the above problem together with the functions and operations of the means. In this connection, embodiments which show how the invention was materialized may be described if necessary. With regard to such embodiments, those which, in the applicant's opinion, bring about the best result may be presented, preferably as many as practicable.

43. The advantages and effects are stated by describing the particular characteristic results obtained by the invention in a form as concrete as possible.

44. The technical scope of the patented invention is determined on the basis of the claims (Section 70) and in the claims there must be stated only the indispensable constituent features of the invention described in the detailed explanation (Section 36(4)). The Examination Manual for Patent and Utility Model requires in 24.01 A that the statement of "Claim or claims" and the content of "Detailed explanation of the invention" must not be contradictory and words and phrases to be used must be consistent.

45. As a general principle the detailed explanation of the invention may be taken into consideration only for the purpose of clarification of matters explicitly stated in the claims. However, the Examination Manual for Patent and Utility Model requires in 24.02 A.2 that the claims must be within the scope of the invention disclosed in the detailed explanation.

46. *Soviet Union.* Section 44(4) of the Statute on Discoveries, Inventions and Rationalization Proposals of 1973, as amended in 1978, requires that an invention is to be disclosed in so full and clear a manner that its novelty and essential features become apparent so as to enable use of the invention.

47. According to Item 40 of the Instructions for the Drafting of Applications in Respect of Inventions (EZ-I-74), the description and any drawings must fully disclose the technical essence of the invention and provide information sufficient for further elaborating and putting into practice the invention; it must give a precise and clear understanding of novelty, essential distinctive features, the positive effect of the claimed technical solution and the contribution made by the invention in the given field of technology.

48. Item 70 of EZ-1-74 requires the description to correspond with the claims and to give exhaustive information on the invention.

49. In the Guidelines for State Scientific Technical Examination of Inventions (EZ-2-74), Item 7.38 confirms the requirements of Item 40 of EZ-1-74.

50. According to Item 7.39 of EZ-2-74, the description and drawings are used for a better understanding of the claims and can serve to clarify the claims.

51. Item 7.50 of EZ-2-74 requires that the description (and drawings) must correspond strictly with the claims and that the examples of the invention must contain the same features as the object of the invention defined by the claims.

52. *Switzerland.* Section 50 of the Federal Law on Patents for Inventions of 1954, as revised in 1976, is in alignment with Article 5 of the PCT and Article 83 of the EPC in requiring the invention to be disclosed in the patent application in such a way that a person skilled in the art may carry it out.

53. Section 26 of the Ordinance on Patents for Inventions incorporates the features of Rule 27 of the EPC Regulations in respect of content of description with the addition, in paragraphs (7) and (8), of requirements that the description must be correct technically and with respect to meaning, its arrangement must be logical and clear, and it must not be in contradiction to the claims.

54. Section 51(3) of the Law repeats the provision of Article 69 of the EPC that the description and drawings are used to interpret the claims.

55. Section 29(2) of the Ordinance requires that the claims must be based on the description.

56. *United Kingdom.* Section 14(3) of the Patents Act 1977 requires the specification to disclose the invention in the same terms as Article 5 of the PCT and Article 83 of the EPC.

57. Section 125(1) of the Patents Act incorporates the provisions of Article 69 of the EPC in stating that an invention must be taken to be that specified in a claim as interpreted by the description and drawings.

58. Section 14(5)(c) of the Patents Act repeats the provision of Article 6 of the PCT and Article 84 of the EPC that (*inter alia*) the claims must be supported by the description.

59. *United States of America.* Section 112 of the United States Code, Title 35 (Patents) (35 USC) requires that the specification must contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and must set forth the best mode contemplated by the inventor of carrying out his invention.

60. In the Code of Federal Regulations, Title 37 (Patents, Trademarks and Copyrights) (37 CFR), further detailed requirements for the description are set out in Section 1.71. According to that Section, the application must include a written description of the invention and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same (37CFR 1.71(a)).

61. The application must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old; it must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable; the best mode contemplated by the inventor of carrying out his invention must be set forth (37 CFR 1.71(b)).

62. In the case of an improvement, the application must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it (37 CFR 1.71(c)).

63. The Code of Federal Regulations requires that the claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description

so that the meaning of the terms in the claims may be ascertainable by reference to the description (37 CFR 1.75(d)(i)).

64. Another feature of United States practice is that a duty of candor and good faith rests on the inventor, on each attorney or agent who prepares or prosecutes the application and on every other individual who is involved in the preparation or prosecution of the application (37 CFR 1.56(a)).

65. This duty includes not only an obligation to disclose to the United States Patent and Trademark Office all material information, such as relevant prior art, but also to ensure that inaccurate statements or inaccurate experiments are not introduced into the application. No results should be represented as actual results unless they have actually been achieved.

G. Comparative Analysis

66. As noted in the Introduction, a function of the description is to transfer the technology relating to the invention, i.e., to describe the invention in such terms that a reader having a reasonable skill in the general field in which the invention lies is enabled to carry out the invention himself.

67. This general requirement of the description is a feature of all the international treaties and national laws considered.

68. In addition, in some cases, more detailed requirements for the content of the description are prescribed, usually by way of regulation (see, for example, Rule 5.1 of the Regulations under the PCT as set out in paragraph 16, above, and Rule 27 of the Implementing Regulations to the EPC as set out in paragraph 20, above).

69. These detailed requirements by regulation in the PCT and the EPC were the result of consultation and discussion with national patent offices and the interested professional circles and it is believed that they represent a logical approach to the description of the invention which would be followed by a patent agent or attorney even in countries which do not lay down specific requirements.

70. In comparing EPC Rule 27 and PCT Rule 5.1(a)(v), it will be noted that the PCT Rule requires the setting forth of the best mode contemplated by the applicant for carrying out the invention claimed (hereinafter referred to as "best mode"), whereas the EPC Rule does not make reference to the best mode.

71. The introduction of the reference to the best mode in PCT Rule 5.1(a)(v) was necessitated by the requirement of the U.S. Code, but failure to describe it has no effect in PCT Contracting States which do not require it (see the last part of PCT Rule 5.1(a)(v)). In view of that dispensation and the fact that the United States of America is the only PCT Contracting State which requires the description of the best mode (see paragraph 59, above, listing the requirements of Section 112 of the U.S. Code Title 35), it can be said that, in practice, international applications filed under the PCT need to set forth the best mode only where the United States of America is designated.

72. Apart from the requirement for the best mode, the section of the U.S. Code referred to in the preceding paragraph corresponds substantially to Article 5 of the PCT and Article 83 of the EPC.

73. Another country requiring a description of the best mode is Canada, but the requirement is limited to cases of machines. Here the principle of the machines must be explained as well as

the best mode of application of that principle (see paragraph 26, above).

74. The Leipzig Agreement provides that the applicant should indicate "the most practical method of employment of the invention" (see paragraph 25, above).

75. It may be of interest to note that although the U.K. Patents Act 1949 in Section 4(3)(c) required that the specification should disclose the best method of performing the invention known to the applicant, this is not a requirement of the current U.K. Patents Act 1977.

76. In comparing EPC Rule 27(1)(g) and PCT Rule 5.1(a)(vi), it will be noted that the PCT Rule requires an explicit indication of the way in which the invention can be made or used or, if it can only be used, the way in which it can be used, whereas the EPC Rule does not contain such a requirement. Further, the PCT Rule provides that the term "industry" is to be understood in its broadest sense as in the Paris Convention, whereas the EPC Rule does not contain such a provision.

77. Another general requirement of the description, i.e., to provide support for the claims, is a feature of most of the international treaties and national laws considered.

78. The other general purpose of the description is that it is to be used to interpret the claims. Such possible use of the description in arriving at an understanding of the claims is a feature of all the international treaties and national laws considered, except the PCT and the Leipzig Agreement which are not concerned with the interpretation of claims. See, in this respect, the study on interpretation of claims which is contained in document HL/CE/III/5.

IV. Purpose of the Description of the Invention

79. As referred to in the Introduction, the purpose of the description is twofold. One purpose is to describe the invention so that it can be carried out by a person skilled in the art. The other is to provide support for the claims and to assist in their interpretation.

80. The first purpose might be achieved by a description of no more than the embodiment of the invention as developed by the inventor in such technical detail that a person skilled in the art could reproduce it.

81. However, from the point of view of providing adequate patent protection for the invention, it would be quite inadequate simply to describe the invention as conceived or put into practice. It is necessary to describe the fundamental features of the invention (which will have been incorporated in a suitably broad claim) and also to elaborate on the various forms they may take and the variants, alternatives and substitutes which may be used in achieving the purpose or function of the invention as claimed.

82. The description can then provide the support required for the interpretation of the claims. Therefore, the breadth of disclosure in the description must be commensurate with the breadth of the claims.

83. Also in relation to determination of the extent of protection provided by the claims, the description may be required in interpreting the claims.

84. For this further purpose, the function of the description is to assist in arriving at an understanding of the claims, e.g., by clarifying any ambiguities and defining any special terms, or any terms used in a special way, in the claims.

V. Arguments in Favor of a Uniform Solution

85. Possible harmonization of requirements for the description of the invention in a patent application has been the subject of long study. Possible solutions have been put forward in the Strasbourg Convention and the Leipzig Agreement.

86. Considerable practical progress towards harmonizing requirements for patenting has been made in the PCT and the EPC. The PCT has established formal requirements for patent applications which are accepted by the present 39 member States. However, although an international application under the PCT has the effect of a regular national application (Article 11(3) of the PCT), it is desirable that national requirements for the description should be harmonized.

87. This is to avoid problems which may arise in prosecution of the application, or in court actions relating to the patent granted on the application, when the adequacy of the description may come into question. Such a question may arise either in respect of the description of the invention to the public or in respect of the support it provides for the claims.

88. Harmonization of national requirements for the description would simplify and make cheaper the filing of the application. One description could then be drafted which would not be regarded as too scanty in some countries nor be unnecessarily detailed, and consequently unnecessarily expensive to translate, for other countries. Further, prosecution and litigation could be simplified and made cheaper if national differences in requirements could be eliminated.

89. The harmonization of interpretation of claims is the subject of a separate study (see document HL/CE/III/5) but the requirements of a description adequate to provide support for the claims are a feature of this study and are included in the following proposals.

VI. Desirability of Action at the International Level

90. It seems to be evident that it is desirable to do the needful to find a uniform solution for the problem under examination in as many treaties and national laws as possible. Such action must take place at the international level. It could take the form either of an international treaty or of a recommendation adopted by a competent body, such as the Assembly of the Paris Union for the Protection of Industrial Property. While a recommendation might have the advantage that it can be adopted relatively easily, it has the disadvantage that it probably would not create sufficient momentum for changing national laws and industrial property office practices. The adoption of treaty provisions would be much more adequate. Such provisions should be included in the envisaged treaty dealing with various aspects of the harmonization of laws for the protection of inventions.

VII. Principles of a Solution

91. The principles of a solution to be embodied in an international treaty and in regulations under that treaty could be drafted as follows:

Treaty

Article 103

"(1) An application shall contain a description. The description shall disclose the invention in a manner suffi-

ciently clear and complete for the invention to be carried out by a person skilled in the art.

(2) The description shall support the claims."

Regulations under the Treaty

Rule relating to Article 103

"(1) The description shall first state the title of the invention as appearing in the request and shall:

(i) specify the technical field to which the invention relates;

(ii) indicate the prior art which, as far as known to the applicant, can be regarded as useful for the understanding, searching and examination of the invention, and, preferably, cite the documents reflecting such art;

(iii) disclose the invention, as claimed, in such terms that the technical problem (even if not expressly stated as such) and its solution can be understood, and state the advantageous effects, if any, of the invention in relation to the prior art;

(iv) briefly describe the figures in the drawings, if any;

(v) describe in detail at least one way of carrying out the invention claimed using examples where appropriate and referring to the drawings, if any;

(vi) indicate explicitly, when it is not obvious from the description or nature of the invention, the way in which the invention is capable of exploitation in industry.

(2) The description shall be presented in the manner and order specified in paragraph (1), unless, because of the nature of the invention, a different manner or a different order would afford a better understanding and a more economic presentation.

(3) Subject to paragraph (2), each of the parts referred to in paragraph (1) shall preferably be preceded by an appropriate heading as suggested in the Guidelines referred to in the next paragraph.

(4) Guidelines in respect of the drafting and contents of the description shall be laid down in Guidelines Concerning the Description of Patent Applications."

VIII. Commentary on the Principles of a Solution

92. The principles set forth in Article 103(1) are already widely accepted. They are supplemented by the proposed Rule relating to Article 103.

93. A key feature of the proposed harmonized requirement set out in Article 103(1) is the "person skilled in the art." An understanding of the presumed competence of this "person" is required. Otherwise the description may be too scanty if it is assumed that the "person" has a broad-ranging and highly detailed knowledge, or too long and detailed if it is assumed that the "person" has a narrow technical background and limited experience.

94. The presumed competence of the "person skilled in the art" in terms of his knowledge and abilities has been discussed in many court decisions in different countries. An explanation of the presumed competence of a "person skilled in the art" is set out in the PCT Guidelines (see paragraph 17, above) and in the EPO Guidelines (see paragraph 21, above). The explanations given in those Guidelines are identical and it is proposed that the same explanation be included in the Guidelines to be elaborated under paragraph (4) of the proposed Rule relating to Article 103.

95. Several searches other than an international search or EPO search may have been carried out. Consequently, the reference in the PCT Guidelines to "the documents cited in the international search report" and in the EPO Guidelines to "the

documents cited in the search report" should be replaced by "the documents cited in search reports," all such documents being taken into account.

96. As regards the proposed Rule relating to Article 103, it will be noted that, like Rule 27 of the Implementing Regulations to the EPC but unlike Rule 5.1(a)(v) of the Regulations under the PCT (see paragraph 70, above), it does not include a requirement for the description to set forth the best mode contemplated by the applicant for carrying out the invention claimed.

97. This requirement for a description of the best mode is a feature of the United States Code and, in a more restricted manner, of the Canadian Patent Act 1952 (see paragraphs 71 to 73, above).

98. Particularly with respect to "first to file" countries, it is arguable that such a requirement is of little practical value in that the best mode known to the inventor at the time of filing the application is likely to be superseded by further development.

99. Further, any breach of the requirement would be difficult to prove, particularly in countries which do not have very comprehensive and rigorous "discovery" provisions allowing one party to litigation to examine the files and other documents of the other party.

100. In the discussions which led to the Strasbourg Convention, the United Kingdom accepted these arguments and in drafting the Patents Act 1977 omitted the "best method" requirement of the Patents Act 1949. Another factor was that this requirement had never been raised in an action for revocation of a patent.

101. Also as regards the proposed Rule relating to Article 103, it will be noted that, like Rule 27(1)(g) of the Implementing Regulations to the EPC but unlike Rule 5.1(a)(vi) of the Regulations under the PCT (see paragraph 76, above), it neither requires an explicit indication of the way in which the invention can be made or used or, if it can only be used, the way in which it can be used, nor provides that the term "industry" is to be understood in its broadest sense as in the Paris Convention. Both that requirement and that provision seem to be superfluous.

102. The principle set forth in Article 103(2) must be read together with the proposed Article 104(1), which provides that "the claim or claims ... shall be supported by the description" (see document HL/CE/III/2 Supp.1, paragraph 143).

103. The detailed requirements of the content of the description necessary to satisfy the principles set forth in both paragraphs of Article 103 will vary according to the technology involved, e.g., mechanical, electrical, chemical, pharmaceutical, etc. It is proposed that those detailed requirements should be the subject of further study if the said principles are generally accepted and that they should be included in the Guidelines to be elaborated under paragraph (4) of the proposed Rule relating to Article 103.

104. The question of the use of drawings to supplement the description should be the subject of further study. In particular, the question whether drawings should be provided in all cases where the nature of the invention admits of illustration by drawings or only where drawings are necessary for the understanding of the invention should be considered.

* * *

III. THE RIGHT TO A PATENT WHERE SEVERAL INVENTORS HAVE MADE THE SAME INVENTION INDEPENDENTLY

(HL/CE/III/4)

Memorandum by the International Bureau of WIPO

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I. Introduction

1. This memorandum deals with the situation where two or more applicants apply for a patent for the same invention that each of them made independently of the others.
2. The question is which of the applicants should be entitled to the patent.
3. In present patent laws, there are two different answers to this question. One of the answers is that the patent should be granted to the applicant who was the first to file an application; this is called the "first-to-file" principle or system. The other answer is that the patent should be granted to the inventor-applicant who was the first to make the invention; this is called the "first-to-invent" system.
4. The first-to-file system is followed by all countries except three (Canada, Philippines, United States of America). The three follow the first-to-invent system.
5. There are arguments for and against both systems.
6. One of the principal arguments for the *first-to-file* system is that one of the main objectives of the patent system is to cause the public disclosure of inventions so that competitors and the public can benefit by the new knowledge that any invention conveys. Under a first-to-file system, inventors are in a hurry to apply because, by applying soon, they diminish the risk of others filing for the same invention. Thus, the sooner they file, the sooner the invention is likely to be accessible to the public: the applicant, being able to rely on the filing date (or the priority date or any grace period, both of which are linked to the filing date) can henceforth disclose his invention without risk; the industrial property office will—other things being equal—publish sooner the application or the patent if the application was filed earlier.

7. One of the arguments for the *first-to-invent* system is that it is more just to grant the patent to the person in whose mind the invention was conceived first than to a person who simply was faster in filing in respect of an invention which was also conceived by the earlier filer, and was independently conceived in his mind, but was conceived later than by the later filer.

8. It is to be noted that the first-to-file principle is not without qualifications. A person who has no right to file (for example, because he misappropriated the invention by stealing the documents describing it) will not benefit from the first-to-file principle. The first-to-file principle applies to the first applicant *who has the right to file*.

9. The *first-to-file* system has a *disadvantage* for the inventor who invented first but was slow in filing. Otherwise, the system seems to have no disadvantages. It can only be objected to on the philosophical ground that the first-to-invent principle is more just.

10. The *first-to-invent* system has the *disadvantage* that proving the date on which the invention was made is usually complex and costly. This is why, at least under the law of the United States of America, the system is not applied without some qualifications. The main qualification is that the applicant of the first application is presumed to be the first inventor. A later applicant may overcome this presumption in a procedure before the United States Patent and Trademark Office called "interference"; it is a procedure renowned for its complexity, length and high costs.

11. The first-to-invent system, under the United States law, has the particularity that the inventor who made his invention outside the United States of America (even if he is a citizen of that country) cannot offer evidence as to the date of the making of the invention. Since most inventions made outside the United States of America are made by non-U.S. inventors, the first-to-invent system, in the United States of America, is, *de facto*, not available to most non-U.S. inventors.

12. The present memorandum recommends that the first-to-file system be adopted as a uniform rule in the world because it is the system followed by almost all the countries of the world and since, coupled with the right of priority provided for in the Paris Convention for the Protection of Industrial Property, it secures equal treatment, both *de jure* and *de facto*, for applicants irrespective of the place where the invention was made (as long as, naturally, the other conditions of the Paris Convention are fulfilled).

II. Purpose of the Memorandum

13. The purpose of this memorandum is to examine the existing provisions as to the use of a first-to-file or a first-to-invent system and to suggest a uniform solution which could easily be applied by national and regional industrial property offices, and which would have the advantage that inventors and applicants would no longer be confronted with differing systems in the various countries. The solution to be proposed for adoption should be acceptable to the largest number of countries.

III. Existing Legislative Provisions

A. Information Used in the Present Memorandum

14. Before exploring any uniform solutions, the existing provisions concerning the use of a first-to-file system or a

first-to-invent system must be examined. The survey of relevant legislative provisions contained in Annex I hereof, on which the analysis in the present memorandum is based, covers the laws of all countries which are party to the Paris Convention for the Protection of Industrial Property and for which information is available at the International Bureau of WIPO with respect to the grant of patents, as well as the provisions of the Stockholm Act (1967) of the Paris Convention, and three regional industrial property conventions, namely, the European Patent Convention (EPC), the Protocol of the African Regional Industrial Property Organization (ARIPO) and the Agreement Relating to the Creation of an African Intellectual Property Organization (Bangui Act) within the framework of the African Intellectual Property Organization (OAPI).^{*} In general, the survey contained in Annex I hereof is based on legislative provisions (treaties, laws, regulations, etc.) and only exceptionally takes into account the interpretation given to the said provisions by courts and industrial property offices or the practice of industrial property offices. The survey only presents a short summary of the said provisions; the summaries have not been verified by the industrial property offices concerned.

B. Comparative Analysis

15. *First-to-file system.* The survey of relevant legislative provisions in Annex I of this memorandum shows that, with the exception of Canada, the Philippines, and the United States of America, all countries party to the Paris Convention for the Protection of Industrial Property, as well as the European Patent Organisation and OAPI apply the first-to-file system.

16. The survey and this memorandum do not deal with the secondary question of what happens if two or more applications are filed for the same invention on the *same day*. This case is too rare to merit special attention.

17. *First-to-invent system.* The laws of Canada, the Philippines and the United States of America apply the first-to-invent system.

18. The law of Canada provides for a first-to-invent system by its definition of novelty. Under Canadian law, the invention must be new (not known or used by any person other than the inventor) as of the date of invention. However, since it is usually not possible to give a precise date for the date of invention, the law sets out a procedure to be followed where two or more inventors make conflicting applications for a patent. Each applicant is required to file an affidavit stating the date upon which the idea of the invention was conceived, the date upon which the first drawing of the invention was made, the date when and the mode in which the first written or verbal disclosure of the invention was made, and the dates and the nature of the successive steps taken by the inventor to develop and perfect the invention from time to time up to the date of the filing of the application for patent. The Commissioner of Patents, after examining the facts stated in the affidavits, determines which of the applicants is the prior inventor.

19. The law of the Philippines expressly provides for a first-to-invent system. However, if two or more persons have made the invention independently, the first person to file a patent application for the invention will receive the patent, unless it is shown that a later applicant was the first inventor. The law sets out a procedure to be followed where two or more inventors make conflicting applications for a patent. In accordance with

^{*} The Patent Cooperation Treaty is not covered in the survey because it does not have any provisions on the question whether Contracting States should follow the first-to-file system or the first-to-invent system.

this procedure, the Director of the Patent Office is to determine who is the prior inventor.

20. Under the law of the United States of America, the first-to-invent system applies. The use of the first-to-invent system always raises the problem as to when precisely is the date of invention; thus the law distinguishes between the dates of the conception of the invention and its reduction to practice. Rules of priority are laid down which take account of these different dates and the continuing nature of the inventive process. The law of the United States of America has more detailed provisions than that of Canada, or the Philippines, to deal with the situation where one inventor conceives the invention before another but is slower to reduce it to practice than is the other inventor. In this case, the law of the United States of America brings in the concept of the "reasonable diligence" of the inventor who first conceived the invention. It will be for the inventor who claims to have been the first to conceive the invention to prove that he exercised reasonable diligence in reducing it to practice.

IV. Arguments in Favor of a Uniform Solution

21. The existence of both the first-to-file system and the first-to-invent system under differing national laws presents obvious problems for inventors when they wish to apply for patents in several countries. Different strategies are required when dealing with the two different systems. Furthermore, when the inventor is faced with the first-to-invent system he lacks legal security because even after he has filed a patent application he does not know whether another inventor will claim that he made the invention first. This lack of legal security may make it difficult for the inventor to attract funding for the development and exploitation of his invention.

22. Both systems have in practice been qualified by the existence of provisions which give each system some of the characteristics of the other. In view of this movement away from the original systems, it should be possible to move still further and agree at an international level on the use of the system to be adopted.

23. The law of the United States of America raises additional questions. That country uses a first-to-invent system but a foreign applicant for a patent in the United States of America is barred from establishing a date of invention by reference to knowledge or use or other activity in relation to the invention in a foreign country (Section 104 of the United States Code (Title 35—Patents)). In practice, therefore, the foreign applicant has to base himself upon filing dates. The original justification for the Section 104 exclusion was based on the difficulties of evidence in proving what had happened in foreign countries. However, with the advancement of modern communications and transport this argument has lost its importance. Furthermore, since the burden of proof always rests on the party wishing to establish a pre-filing date of invention, his difficulties in proving foreign acts could easily be taken into account and weighed up when the court decides whether the burden of proof has been satisfied. A blanket bar on the proof of all such foreign acts would seem to be an unnecessary limitation.

24. Despite not being allowed to prove foreign acts, a foreign inventor may nevertheless still become involved in complex legal proceedings in the United States of America regarding dates of invention. If a domestic inventor alleges that he invented before the foreign inventor's priority date, then the issue may arise as to when the domestic inventor did invent. It is then likely that the issues will arise as to when the domestic inventor conceived the invention, when he reduced it to

practice and whether he exercised "reasonable diligence." The foreign inventor may be put to the expense of contesting the domestic inventor's evidence on all these issues. The foreign inventor therefore becomes involved in the complex legal proceedings which result from the first-to-invent system as applied in the United States of America.

25. In a similar way, two inventors based in the United States of America may also become involved in such priority contests. The expense and the complexity of proceedings relating to such priority contests tend to create a disadvantage for the individual inventor and small businesses. The individual inventor or a small business is less able to bear the cost of such proceedings than is a large corporation.

26. Since most countries have now adopted the first-to-file system, and since that system has the advantages of being simple, easy to administer and, if supplemented by provisions against misappropriation, excludes unjust results, it should be recommended to agree at an international level to adopt the first-to-file system rather than the first-to-invent system. The legal security which is already afforded to patent applicants by the Paris Convention for the Protection of Industrial Property would be considerably increased if the remaining countries which use a first-to-invent system were to change to the first-to-file system.

V. Desirability of Action at the International Level

27. It seems evident that it is desirable to take measures to find a uniform solution as to which of the two systems is to be adopted. Such action must take place at the international level. It could take the form either of an international treaty or of a recommendation adopted by a competent body, such as the Assembly of the Paris Union for the Protection of Industrial Property. While a recommendation might have the advantage that it can be adopted relatively easily, it has the disadvantage that it probably would not create sufficient momentum for changing national laws and industrial property office practices. The adoption of treaty provisions would be much more adequate. Such provisions should be included in the envisaged treaty dealing with various aspects of the harmonization of laws for the protection of inventions.

VI. Principles of a Solution

28. The principles of the solution to be embodied in an international treaty could be drafted as follows:

"Where two or more persons have made the same invention independently of each other, the right to a patent for the invention shall belong to the person whose application has the earliest filing date or, where priority is claimed, the earliest priority date."

Annex I

Survey of Legislative Provisions Concerning the Right to a Patent Where Several Inventors Have Made the Same Invention Independently

(Relevant Conventions and National Legislation
in the Order of the Number of Patents Granted in 1985)

General

1. As stated, the present Annex covers the Paris Convention for the Protection of Industrial Property, the relevant regional

conventions and the laws of all countries party to the Paris Convention for the Protection of Industrial Property for which information is available at the International Bureau of WIPO. The relevant provisions of the Paris Convention are examined first. The other conventions and countries are then listed, in descending order of the total number of patents granted for inventions in 1985 (including inventors' certificates where the latter are granted), and each followed by a reference to the pertinent legal provisions.* The number in parentheses after each regional convention and country represents the total number of patents and any inventors' certificates granted in 1985. If information on the number of such titles of protection granted in 1985 is not available at the International Bureau of WIPO, then the figures for 1984 are indicated, where available, and this is noted accordingly.** Those conventions and countries in respect of which no patents or inventors' certificates were granted or for which statistics are not available, as well as the member countries of OAPI, are listed in alphabetical order at the end. The statistical information is based on WIPO Industrial Property Statistics, 1984 (publication IP/STAT/1984/B) and on those statistics furnished to the International Bureau of WIPO for 1985, for publication in the forthcoming corresponding publication on 1985 statistics.

Information on the Paris Convention for the Protection of Industrial Property

2. The Paris Convention for the Protection of Industrial Property.

Article 4A(1) of the Paris Convention reads as follows:

"Any person who has duly filed an application for a patent, or for the registration of a utility model, or of an industrial design, or of a trademark, in one of the countries of the Union, or his successor in title, shall enjoy, for the purpose of filing in the other countries, a right of priority during the periods hereinafter fixed."

3. This provision does not require Paris Union member States to provide for the first-to-file system, but it does make the filing date (as opposed to the date of invention) the important date from the point of view of establishing priority.

4. Furthermore, if an inventor has made a thorough search of the prior art, upon the filing of his patent application in one of the countries of the Union, he gains some legal security because he may obtain patent protection in the other member States of the Paris Union provided that he makes the necessary applications within the priority period. However, the inventor's legal security only holds in respect of those countries which operate a first-to-file system. In respect of those countries which operate a first-to-invent system, even though the inventor has made a thorough search of the prior art and has filed his patent application so as to obtain Paris Convention priority, the inventor is still not secure since the possibility still exists that another inventor will claim that he made the invention first. The Paris Convention would provide more legal security if all member States of the Paris Union operated a first-to-file system.

* In order to facilitate locating a particular regional convention or country, Annex II to this document contains alphabetical lists of the relevant regional conventions and countries whose laws are examined in this document, with an indication, where applicable, of the corresponding number of patents and inventors' certificates granted for each in 1985 or, in absence thereof, in 1984.

** This applies to Argentina, Burundi, Egypt, Luxembourg and Zaire.

Information on Regional Conventions and Countries

5. *Soviet Union (74,590).*¹ The Soviet Union uses a first-to-file system. There are no provisions in the Statute on Discoveries, Inventions and Rationalization Proposals of 1973, as amended in 1978, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the industrial property office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

6. *United States of America (71,661).* According to Section 102(g) of the United States Code (Title 35—Patents), a person shall be entitled to a patent on his invention, unless, before the date of invention, the invention had been made in the United States of America by another, who had not abandoned, suppressed, or concealed it. Thus, patents are only available to the first inventor, and the United States of America operates a first-to-invent system. In addition, Section 115 provides that the applicant for a patent must make oath that he believes himself to be the original and first inventor of the subject matter of the patent application.

7. Nevertheless, the law recognizes that invention is a continuous rather than an instantaneous process and distinguishes between the time of conception of the invention, and the time of its reduction to practice. Thus, Section 102(g) further provides that, in determining priority of invention, there shall be considered not only the respective dates of conception and reduction to practice, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other. It is well established in the jurisprudence that, as between two inventors, priority of invention will be awarded to the one who proves that he first conceived the invention, provided, however, that if the first to conceive the invention is the last to reduce it to practice, he will only be awarded priority if he exercised reasonable diligence in reducing to practice from a time just prior to when the first person to reduce to practice conceived the subject matter.

8. There is a presumption that the filing date of a patent application is to be taken as the date of invention (Section 1.257 of the Code of Federal Regulations (Title 37—Patents, Trademarks, Copyrights)). An inventor always bears the burden of proving an earlier date of invention by showing either an actual reduction to practice or an earlier conception and diligence to reduction to practice.

9. However, according to Section 104 of the United States Code (Title 35—Patents), an applicant for a patent or a patentee may not establish a date of invention by reference to knowledge or use thereof, or other activity with respect thereto, in a foreign country, except as provided in Sections 119 and 365 (which provide for the right of priority, based on filing in a foreign country or under the Patent Cooperation Treaty). According to Section 104, therefore, only evidence of invention taking place in the United States of America may be used to prove a date of invention which is earlier than the filing date in the United States of America.

10. Section 135(b) sets a time limit on when an inventor may contest the priority of a claim of an issued patent, and so affects the ability of an inventor to claim that he was the first inventor of the subject matter of the patent. Under the Section, the inventor must commence the action contesting priority within one year from the date on which the patent was granted.

¹ This figure represents the total number of patents and inventors' certificates granted.

11. *Japan (50,100)*. Japan uses a first-to-file system. Section 39(1) of the Patent Law of 1959, as amended in 1985, states that where two or more patent applications relating to the same invention are filed on different dates, only the first applicant may obtain a patent for the invention. In addition, Sections 42*bis* and 43 provide for the claiming of a priority date which is earlier than the actual filing date of a patent application. Thus, when several inventors have made the same invention independently, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

12. *Italy (37,506)*.² Italy uses a first-to-file system. There are no provisions in the Law on Patents for Inventions of 1939, as last amended in 1979, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

13. *France (24,195)*.³ France uses a first-to-file system. Section 1*bis* of the Patent Law of 1968, as last amended and supplemented in 1984, states that if two or more persons have made an invention independently of each other, the right to the industrial property title shall belong to that person who can prove the earliest date of deposit. In addition, Section 15 provides for the claiming of a priority date which is earlier than the actual filing date of a patent application. Thus, when several inventors have made the same invention independently, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

14. *United Kingdom (20,880)*.⁴ The United Kingdom uses a first-to-file system. Section 5 of the Patents Act of 1977 provides that the priority date of an invention to which an application for a patent relates is the date of filing of a patent application for that invention, unless an earlier priority date may be validly claimed. Thus, when several inventors have made the same invention independently, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

15. *Germany (Federal Republic of) (19,500)*.⁵ The Federal Republic of Germany uses a first-to-file system. Section 6 of the Patent Law of 1981 provides that if two or more persons have made the invention independently of each other, the right to the patent shall belong to the person who is the first to file an application with the patent office. In addition, Sections 40 and 41 provide for the claiming of a priority date which is earlier than the actual filing date of a patent application. Thus, when several inventors have made the same invention independently, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where

priority is claimed, whose application has the earliest priority date.

16. *Canada (18,697)*. Section 28(1)(a) of the Patent Act of 1952, as amended in 1972, provides that an inventor or legal representative of an inventor shall be entitled to a patent on the invention, provided that the invention was not known or used by any other person before he invented. This Section therefore gives rise to a first-to-invent system. Subsections (b) and (c) of Section 28(1) place some limitation on the inventor's right to obtain a patent on his invention. Subsection (b) requires that the invention must not have been described in any patent or in any publication printed in Canada or in any other country more than two years before the filing date of the patent application. Subsection (c) requires that the invention must not have been in public use or on sale in Canada for more than two years prior to the filing of the patent application in Canada.

17. Section 45(5) of the Act sets out the procedure to be followed where two or more inventors make conflicting applications for patents. Under the Section each applicant is required to file an affidavit of the record of the invention. The affidavit must declare:

- (a) the date upon which the idea of the invention described in the conflicting claims was conceived;
- (b) the date upon which the first drawing of the invention was made;
- (c) the date when and the mode in which the first written or verbal disclosure of the invention was made;
- (d) the dates and nature of the successive steps taken by the inventor to develop and perfect the invention from time to time up to the date of the filing of the application for patent.

18. *European Patent Convention (EPC) (15,117)*. The European Patent Convention establishes a first-to-file system. Article 60(2) of the EPC provides as follows:

"If two or more persons have made an invention independently of each other, the right to the European patent shall belong to the person whose European patent application has the earliest date of filing;..."

In addition, Article 87 provides, in appropriate cases, for a priority date which is earlier than the actual filing date of the European patent application. Article 89 states that such a priority date counts as the filing date for the purposes of Article 60(2). Thus, when several inventors have made the same invention independently, the European Patent Office would grant a European patent to the applicant who first files a European patent application, or, where priority is claimed, whose European patent application has the earliest priority date.

19. *German Democratic Republic (12,705)*.⁶ The German Democratic Republic uses a first-to-file system. There are no provisions in the Law of 1983 on the Legal Protection of Inventions (Patent Law) which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the Office of Inventions and Patents would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

20. *Spain (9,115)*. Spain uses a first-to-file system. Section 10(3) of the Law on Patents of 1986 provides that when the same invention has been made independently by different persons, the right to the patent shall belong to the person whose

² This figure represents the number of national patents granted. In addition, the European Patent Office granted 10,418 patents with effect in Italy.

³ This figure represents the number of national patents granted. In addition, the European Patent Office granted 13,335 patents with effect in France.

⁴ This figure represents the number of national patents granted. In addition, the European Patent Office granted 13,600 patents with effect in the United Kingdom.

⁵ This figure represents the number of national patents granted. In addition, the European Patent Office granted 13,877 patents with effect in the Federal Republic of Germany

⁶ This figure represents the total number of exclusive patents and economic patents.

application has the earlier filing date in Spain. In addition, Sections 28 and 29 provide for the claiming of a priority date which is earlier than the actual filing date of a patent application. Thus, when several inventors have made the same invention independently, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

21. *Czechoslovakia (7,496)*.⁷ Czechoslovakia uses a first-to-file system. There are no provisions in the Law on Discoveries, Inventions, Rationalization Proposals and Industrial Designs of 1972 which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

22. *Australia (6,988)*. Australia uses a first-to-file system. There are no provisions in the Patent Act of 1952, as amended to 1982, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

23. *Switzerland (6,421)*.⁸ Switzerland uses a first-to-file system. Section 3(3) of the Federal Law on Patents for Inventions of 1954, as revised in 1976, states that, where several inventors have made the invention independently of each other, this right (the right to obtain a patent) belongs to whoever may base himself upon the earliest application or the application with the earliest priority date.

24. *Sweden (5,681)*.⁹ Sweden uses a first-to-file system. There are no provisions in the Patent Act of 1967, as amended in 1983, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

25. *Poland (4,467)*. Poland uses a first-to-file system. There are no provisions in the Law on Inventive Activity of 1972, as amended in 1984, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention or, where priority is claimed, whose application has the earliest priority date.

26. *Brazil (3,934)*. Brazil uses a first-to-file system. There are no provisions in the Industrial Property Code of 1971 which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

⁷ This figure represents the total number of patents and inventors' certificates granted.

⁸ This figure represents the number of national patents granted. In addition, the European Patent Office granted 8,119 patents with effect in Switzerland.

⁹ This figure represents the number of national patents granted. In addition, the European Patent Office granted 7,839 patents with effect in Sweden.

27. *Greece (3,218)*. Greece uses a first-to-file system. There are no provisions in the Law of 1920 on Patents of Invention of which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

28. *Romania (2,786)*. Romania uses a first-to-file system. There are no provisions in the Law on Inventions and Innovations of 1974 which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

29. *Austria (2,571)*.¹⁰ Austria uses a first-to-file system. Section 4(1) of the Patent Law of 1970, as amended in 1984, provides as follows:

"Only the inventor or his successor in title shall have a right to the grant of a patent. Until otherwise proved, the first person to apply for a patent shall be regarded as the inventor. No subsequent application shall give a right to a patent if the invention is already the subject of a patent or of an earlier application which leads to the grant of a patent. If these circumstances apply only in part, the later applicant shall only have a right to the grant of a patent made subject to corresponding restrictions."

In addition, Section 95 provides for the claiming of a priority date which is earlier than the actual filing date of a patent application. Thus, when several inventors have made the same invention independently, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

30. *Republic of Korea (2,268)*. The Republic of Korea uses a first-to-file system. Section 11(1) of the Patent Law of 1961, as last amended in 1982, provides that only the first applicant is entitled to obtain a patent for an invention. In addition, Section 42 provides for the claiming of a priority date which is earlier than the actual filing date of a patent application. Thus, when several inventors have made the same invention independently, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

31. *Norway (2,165)*. Norway uses a first-to-file system. There are no provisions in the Patent Act of 1967, as last amended in 1980, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

32. *Finland (2,161)*. Finland uses a first-to-file system. There are no provisions in the Patent Law of 1967, as last amended in 1985, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

¹⁰ This figure represents the number of national patents granted. In addition, the European Patent Office granted 6,171 patents with effect in Austria.

33. *Netherlands (2,145)*.¹¹ The Netherlands uses a first-to-file system. There are no provisions in the Patent Act of 1910, as last amended in 1978, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

34. *Hungary (2,095)*. Hungary uses a first-to-file system. Section 8(3) of the Law on the Protection of Inventions by Patents of 1969, as last amended in 1983, provides that if two or more persons have created an invention independently of each other, the right to a patent shall belong to the person who filed the application at the National Office of Inventions with the earliest date of priority.

35. *Belgium (1,976)*.¹² Belgium uses a first-to-file system. Section 8 of the Patent Law of 1984 provides that if two or more persons have made an invention independently of each other, the right to the patent shall belong to the person whose patent application has the earliest date of filing. In addition, Section 19 provides for the claiming of a priority date which is earlier than the actual filing date of a patent application. Thus, when several inventors have made the same invention independently, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

36. *Bulgaria (1,850)*.¹³ Bulgaria uses a first-to-file system. There are no provisions in the Law on Inventions and Rationalizations of 1968, as amended in 1982, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

37. *New Zealand (1,732)*. New Zealand uses a first-to-file system. There are no provisions in the Patents Act of 1953, as amended in 1976, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

38. *Argentina (1,677)*.¹⁴ Argentina uses a first-to-file system. There are no provisions in the Law on Patents for Inventions of 1864, as amended in 1967, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

39. *Israel (1,636)*. Israel uses the first-to-file system. Section 9 of the Patents Law of 1967 provides that where more than one

applicant has applied for a patent on the same invention, the patent shall be granted to him who first validly applied for it. In addition, Section 10 provides for the claiming of a priority date which is earlier than the actual filing date of a patent application. Thus, when several inventors have made the same invention independently, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

40. *Mexico (1,374)*.¹⁵ Mexico uses a first-to-file system. There are no provisions in the Law on Inventions and Marks of 1975, as last amended in 1978, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

41. *Philippines (1,281)*. The Philippines operates a first-to-invent system. Section 10 of the Act Creating a Patent Office, Prescribing its Powers and Duties, Regulating the Issuance of Patents, and Appropriating Funds Therefor of 1947, as last amended in 1978, provides that the right to the patent belongs to the first true and actual inventor, his heirs, legal representatives, or assigns. Section 10 further provides that if two or more persons have made an invention separately and independently of each other, the right to a patent belongs to the person who is the first to file an application for such invention, unless it is shown that the second to file an application was the original and first inventor. Section 10 also provides that whenever an application is made for a patent which, in the opinion of the Director of the Patent Office, would interfere with any pending application, or with any unexpired patent, he will give notice thereof to the applicants and patentee, as the case may be, and will proceed to determine the question of priority of invention. Upon termination of the interference proceedings, the Director of the Patent Office may issue a patent to the party who is adjudged the prior inventor.

42. *Denmark (1,054)*. Denmark uses a first-to-file system. There are no provisions in the Patents Act of 1967, as last amended in 1984, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

43. *Yugoslavia (1,053)*. Yugoslavia uses a first-to-file system. Section 72 of the Law on the Protection of Inventions, Technical Improvements and Distinctive Signs of 1981 provides that from the day and hour of receipt in the patent office of a correct application for a patent, the applicant shall have priority over any other person subsequently filing an application for the same invention. In addition, Sections 74 to 76 provide for the claiming of a priority date which is earlier than the actual filing date of a patent application. Thus, when several inventors have made the same invention independently, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

44. *Ireland (1,042)*. Ireland uses a first-to-file system. There are no provisions in the Patents Act of 1964, as last amended in 1966, which require that a patent should be granted to the first inventor when several inventors have made the same

¹¹ This figure represents the number of national patents granted. In addition, the European Patent Office granted 9,822 patents with effect in the Netherlands.

¹² This figure represents the number of national patents granted. In addition, the European Patent Office granted 8,062 patents with effect in Belgium.

¹³ This figure represents the total number of patents and inventors' certificates granted.

¹⁴ This figure is based on 1984 statistics.

¹⁵ This figure represents the total number of patents and invention certificates granted.

invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

45. *Portugal (960)*. Portugal uses a first-to-file system. There are no provisions in the Code on Industrial Property of 1940, as last amended in 1984, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

46. *Luxembourg (418)*.¹⁶ Luxembourg uses the first-to-file system. Section 3 of the Patent Law of 1880, as last amended in 1967, provides that the right to obtain a patent belongs to the person who first discloses the invention in the required way. In addition, Section 8 of the Law Approving the Patent Cooperation Treaty Done at Washington on June 19, 1970, and Amending the National Legislation on Patents provides for the claiming of a priority date which is earlier than the actual filing date of a patent application. Thus, when several inventors have made the same invention independently, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

47. *Turkey (385)*. Turkey uses a first-to-file system. There are no provisions in the Patent Law of 1879 which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

48. *Morocco (313)*. Morocco uses a first-to-file system. There are no provisions in the Law on the Protection of Industrial Property in the Zone of Tangiers of 1938, as last amended in 1954, or the Law Relating to the Protection of Industrial Property in the French Zone of Morocco of 1916, as last amended in 1957, or the Law Relating to Industrial Property in the Spanish Zone of Morocco of 1919 which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

49. *Uruguay (294)*. Uruguay uses a first-to-file system. There are no provisions in the Law on Patents of Invention of 1941 which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

50. *OAPI (225)*.¹⁷ The African Intellectual Property Organization (OAPI) uses a first-to-file system. There are no provisions in the Agreement Relating to the Creation of an African Intellectual Property Organization (Bangui Act of 1977) which provide that OAPI should grant a patent to the first inventor

when several inventors have made the same invention independently. Thus, in such cases, OAPI would grant a patent to the applicant who first applies for a patent for the invention, or, where priority is claimed, whose application has the earliest priority date.

51. *Egypt (220)*.¹⁸ Egypt uses a first-to-file system. There are no provisions in the Law on Patents for Invention and on Industrial Designs of 1949, as last amended in 1955, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

52. *Zimbabwe (212)*. Zimbabwe uses a first-to-file system. There are no provisions in the Patents Act of 1972, as last amended in 1984, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

53. *Iran (Islamic Republic of) (120)*. The Islamic Republic of Iran uses a first-to-file system. There are no provisions in the Law on the Registration of Trademarks and Patents of Invention of 1931 which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

54. *Sri Lanka (112)*. Sri Lanka uses a first-to-file system. There are no provisions in the Code of Intellectual Property Act of 1979 which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

55. *Iraq (103)*. Iraq uses a first-to-file system. Section 8 of the Patents and Industrial Designs Law of 1970 provides that where several persons have each independently arrived at the invention, the person who has filed his application first shall be entitled to the patent. However, where priority is claimed, the patent office would, no doubt, grant a patent to the applicant whose application has the earliest priority date.

56. *Kenya (98)*. Kenya uses a first-to-file system. There are no provisions in the Patents Registration Act of 1953, as last amended in 1973, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

57. *Zaire (93)*.¹⁹ Zaire uses a first-to-file system. There are no provisions in the Law on Industrial Property of 1982 which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the

¹⁶ This figure represents the number of national patents granted. In addition, the European Patent Office granted 3,515 patents with effect in Luxembourg.

¹⁷ This figure is based on 1984 statistics.

¹⁸ This figure is based on 1984 statistics.

¹⁹ This figure is based on 1984 statistics.

invention, or, where priority is claimed, whose application has the earliest priority date.

58. *Zambia (74)*. Zambia uses a first-to-file system. There are no provisions in the Patents Act of 1958, as amended in 1980, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

59. *Bahamas (66)*. The Bahamas use a first-to-file system. There are no provisions in the Industrial Property Act of 1965, as last amended in 1975, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

60. *Monaco (66)*. Monaco uses a first-to-file system. There are no provisions in the Law on Patents of Invention of 1955, as amended in 1956, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

61. *China (44)*.²⁰ China uses the first-to-file system. Section 9 of the Patent Law of 1984 states that where two or more applicants file applications for a patent for an identical invention-creation, the patent right shall be granted to the applicant whose application was filed first. In addition, Sections 29 and 30 provide for the claiming of a priority date which is earlier than the actual filing date of a patent application. Thus, when several inventors have made the same invention independently, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

62. *Cyprus (43)*. Cyprus uses a first-to-file system. There are no provisions in the Patent Law of 1957 which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

63. *Malawi (43)*. Malawi uses a first-to-file system. There are no provisions in the Patents Act of 1957, as last amended in 1967, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

64. *United Republic of Tanzania (30)*. The United Republic of Tanzania uses a first-to-file system. There are no provisions in the Patents (Registration) Ordinance of Tanganyika of 1931, as last amended in 1964, or the Patents Decree of Zanzibar of 1930, as last amended in 1958, which require that a patent

should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

65. *Mongolia (28)*.²¹ Mongolia uses a first-to-file system. There are no provisions in the Statute on Discoveries, Inventions and Rationalization Proposals of 1970 which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

66. *Uganda (26)*. Uganda uses a first-to-file system. There are no provisions in the Patents Act of 1939, as last amended in 1964, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

67. *Iceland (21)*. Iceland uses a first-to-file system. Section 3 of the Law Relating to Patents of 1923, as last amended in 1984, provides that where more than one party has applied for a patent for the same or a substantially similar invention, the party first to have applied shall be entitled to the patent. In addition, Rule 6 of the Regulation Concerning the Application for and Granting of Patents of 1966 provides for the claiming of a priority date which is earlier than the actual filing date of a patent application. Thus, when several inventors have made the same invention independently, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

68. *Malta (20)*. Malta uses a first-to-file system. There are no provisions in the Industrial Property (Protection) Ordinance of 1899, as amended in 1970, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

69. *Cuba (18)*.²² Cuba uses a first-to-file system. There are no provisions in the Decree-Law on Inventions, Scientific Discoveries, Industrial Designs, Marks and Appellations of Origin of 1983 which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

70. *Barbados (15)*. Barbados uses a first-to-file system. There are no provisions in the Patents Act of 1981, as last amended in 1984, which require that a patent should be granted to the first inventor when several inventors have made the same

²⁰ This figure indicates patents applications for which were filed less than nine months before grant (since the Chinese Patent Law went into effect on April 1, 1985). Consequently, the figure is not characteristic at all.

²¹ This figure represents the total number of patents and inventors' certificates granted.

²² This figure represents the number of patents granted. Information on the number of inventors' certificates granted in 1985 is not available.

invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

71. *Viet Nam (14)*.²³ Viet Nam uses a first-to-file system. Section 6(2) of the Ordinance on Innovations to Effect Technical Improvements and Rationalizations in Production and on Inventions of 1981 provides that when two or more persons separately file applications for innovation certificates with the same subject matter, priority shall be given to the innovator who filed the first application. In addition, Section 28 provides for the claiming of a priority date which is earlier than the actual filing date of a patent application. Thus, when several inventors have made the same invention independently, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

72. *Haiti (9)*. Haiti uses a first-to-file system. There are no provisions in the Law Relating to Patents of Invention, Patents for Designs and Utility Models of 1922, as last amended in 1924, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

73. *Burundi (7)*.²⁴ Burundi uses a first-to-file system. Section 1 of the Patent Law of 1964, as last amended in 1968, provides that the first person to file the required description shall be entitled to the exclusive rights of exploitation. However, where priority is claimed, the patent office would, no doubt, grant a patent to the applicant whose application has the earliest priority date.

74. *Mauritius (4)*. Mauritius uses a first-to-file system. There are no provisions in the Patents Ordinance of 1875, as last amended in 1983, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

75. *ARIPO (1)*. The ARIPO Protocol on Patents and Industrial Designs of 1982 and its Implementing Regulations do not specifically state whether the system is a first-to-file system or a first-to-invent system.

76. *Rwanda (1)*. Rwanda uses a first-to-file system. Section 1 of the Patent Law of 1963 provides that the first person to file the required description shall be entitled to the exclusive rights of exploitation. However, where priority is claimed, the patent office would, no doubt, grant a patent to the applicant whose application has the earliest priority date.

77. *Algeria (no patents or inventors' certificates were granted in 1985 or in any year since 1966)*. Algeria uses a first-to-file system. There are no provisions in the Ordinance on Inventors' Certificates and Patents of 1966 which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or,

where priority is claimed, whose application has the earliest priority date.

78. *Benin (—)*. See OAPI.

79. *Burkina Faso (—)*. See OAPI.

80. *Cameroon (—)*. See OAPI.

81. *Central African Republic (—)*. See OAPI.

82. *Chad (—)*. See OAPI.²⁵

83. *Congo (—)*. See OAPI.

84. *Côte d'Ivoire (—)*. See OAPI.

85. *Democratic People's Republic of Korea (no statistical information available)*. The Democratic People's Republic of Korea uses a first-to-file system. There are no provisions in the Law on Inventions and Innovations of 1978, as revised, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

86. *Dominican Republic (no statistical information available)*. Dominican Republic uses a first-to-file system. There are no provisions in the Law on Patents for Invention of 1911, as amended in 1961, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

87. *Gabon (—)*. See OAPI.

88. *Ghana (no statistical information available)*. Ghana uses a first-to-file system. There are no provisions in the Patents Registration Ordinance of 1922, as last amended in 1972, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

89. *Holy See (no patents granted; however, Italian patents are also valid in the Holy See)*. Italian law applies.

90. *Indonesia (no patents granted in 1985 or in previous years)*. Indonesia seems to use a first-to-file system. The patent office accepts applications for patents but, for the time being, there are no provisions on the grant of patents.

91. *Jordan (no statistical information available)*. Jordan uses a first-to-file system. There are no provisions in the Patents and Designs Law of 1953 which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

²³ This amount represents the number of inventors' certificates granted. No patents were granted in 1985.

²⁴ This figure is based on 1984 statistics.

²⁵ Chad is a member of OAPI but is bound by the Libreville Agreement of 1962 rather than the Bangui Act of 1977 which revises the Libreville Agreement. There is no difference between the Libreville Agreement and the Bangui Act on the question of whether a first-to-file system or a first-to-invent system should apply.

92. *Lebanon (no statistical information available)*. Lebanon uses a first-to-file system. There are no provisions in the Decree Regulating the Rights of Commercial, Industrial, Artistic, Literary and Musical Property of 1924, as last amended in 1946, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

93. *Libya (no statistical information available)*. Libya uses the first-to-file system. Section 5 of the Law Relating to Patents, Designs and Industrial Models of 1959 provides that where several persons make an invention independently of each other, the right to the patent shall be vested in the person who first deposits his application. In addition, Section 49 provides for the claiming of a priority date which is earlier than the actual filing date of a patent application. Thus, when several inventors have made the same invention independently, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

94. *Liechtenstein (no patents granted; however, Swiss patents are also valid in Liechtenstein)*. Swiss law applies.

95. *Mali (-)*. See OAPI.

96. *Mauritania (-)*. See OAPI.

97. *Niger (-)*. See OAPI.

98. *Nigeria (no statistical information available)*. Nigeria uses the first-to-file system. Section 2 of the Decree on Patents and Designs of 1970 provides that the right to a patent in respect of an invention is vested in the person who, whether or not he is the true inventor, is the first to file, or validly to claim a foreign priority for, a patent application in respect of the invention.

99. *San Marino (no patents granted; however, Italian patents are also valid in San Marino)*. Italian law applies.

100. *Senegal (-)*. See OAPI.

101. *Sudan (no statistical information available)*. Sudan uses a first-to-file system. Section 8(3) of the Patents Act of 1971 provides that the right to a patent belongs to the person who is the first to file an application for a patent on the invention concerned, or is the first validly to claim the earliest priority for an application for the same invention.

102. *Syria (no statistical information available)*. Syria uses a first-to-file system. There are no provisions in the Legislative Decree Relating to the Protection of Commercial and Industrial Property of 1946, as last amended in 1980, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

103. *Togo (-)*. See OAPI.

104. *Trinidad and Tobago (no statistical information available)*. Trinidad and Tobago uses a first-to-file system. There are no provisions in the Patents and Designs Act of 1900, as last amended in 1979, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant

who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

105. *Tunisia (no statistical information available)*. Tunisia uses a first-to-file system. There are no provisions in the Law on Patents for Invention of 1888, as last amended in 1956, which require that a patent should be granted to the first inventor when several inventors have made the same invention independently. Thus, in such cases, the patent office would grant a patent to the applicant who first applies for a patent on the invention, or, where priority is claimed, whose application has the earliest priority date.

Annex II

Alphabetical Lists of Regional Conventions and Countries

I. *Regional Conventions and Countries with Corresponding Number of Patents and Inventors' Certificates*

Argentina (1,677) (see paragraph 33 of Annex I);
 ARIPO (1)(see paragraph 70 of Annex I);
 Australia (6,988) (see paragraph 16 of Annex I);
 Austria (2,571) (see paragraph 24 of Annex I);
 Bahamas (66) (see paragraph 54 of Annex I);
 Barbados (15) (see paragraph 65 of Annex I);
 Belgium (1,976) (see paragraph 30 of Annex I);
 Brazil (3,934) (see paragraph 21 of Annex I);
 Bulgaria (1,850) (see paragraph 31 of Annex I);
 Burundi (7) (see paragraph 68 of Annex I);
 Canada (18,697) (see paragraph 11 of Annex I);
 China (44)(see paragraph 56 of Annex I);
 Cuba (18) (see paragraph 64 of Annex I);
 Cyprus (43) (see paragraph 57 of Annex I);
 Czechoslovakia (7,496) (see paragraph 15 of Annex I);
 Denmark (1,054) (see paragraph 37 of Annex I);
 Egypt (220) (see paragraph 46 of Annex I);
 European Patent Convention (EPC) (15,117) (see paragraph 12 of Annex I);
 Finland (2,161) (see paragraph 27 of Annex I);
 France (24,195) (see paragraph 8 of Annex I);
 German Democratic Republic (12,705) (see paragraph 13 of Annex I);
 Germany (Federal Republic of) (19,500) (see paragraph 10 of Annex I);
 Greece (3,218) (see paragraph 22 of Annex I);
 Haiti (9) (see paragraph 67 of Annex I);
 Hungary (2,095) (see paragraph 29 of Annex I);
 Iceland (21) (see paragraph 62 of Annex I);
 Iran (Islamic Republic of) (120) (see paragraph 48 of Annex I);
 Iraq (103) (see paragraph 50 of Annex I);
 Ireland (1,042) (see paragraph 39 of Annex I);
 Israel (1,636) (see paragraph 34 of Annex I);
 Italy (37,506) (see paragraph 7 of Annex I);
 Japan (50,100) (see paragraph 6 of Annex I);
 Kenya (98) (see paragraph 51 of Annex I);
 Luxembourg (418) (see paragraph 41 of Annex I);
 Malawi (43) (see paragraph 58 of Annex I);
 Malta (20) (see paragraph 63 of Annex I);
 Mauritius (4) (see paragraph 69 of Annex I);
 Mexico (1,374) (see paragraph 35 of Annex I);
 Monaco (66) (see paragraph 55 of Annex I);
 Mongolia (28) (see paragraph 60 of Annex I);
 Morocco (313) (see paragraph 43 of Annex I);
 Netherlands (2,145) (see paragraph 28 of Annex I);
 New Zealand (1,732) (see paragraph 32 of Annex I);

Norway (2,165) (see paragraph 26 of Annex I);
 OAPI (225) (see paragraph 45 of Annex I);
 Philippines (1,281) (see paragraph 36 of Annex I);
 Poland (4,467) (see paragraph 20 of Annex I);
 Portugal (960) (see paragraph 40 of Annex I);
 Republic of Korea (2,268) (see paragraph 25 of Annex I);
 Romania (2,786) (see paragraph 23 of Annex I);
 Rwanda (1) (see paragraph 71 of Annex I);
 Soviet Union (74,590) (see paragraph 4 of Annex I);
 South Africa (6,768) (see paragraph 17 of Annex I);
 Spain (9,115) (see paragraph 14 of Annex I);
 Sri Lanka (112) (see paragraph 49 of Annex I);
 Sweden (5,681) (see paragraph 19 of Annex I);
 Switzerland (6,421) (see paragraph 18 of Annex I);
 Turkey (385) (see paragraph 42 of Annex I);
 Uganda (26) (see paragraph 61 of Annex I);
 United Kingdom (20,880) (see paragraph 9 of Annex I);
 United Republic of Tanzania (30) (see paragraph 59 of Annex I);
 United States of America (71,661) (see paragraph 5 of Annex I);
 Uruguay (294) (see paragraph 44 of Annex I);
 Viet Nam (14) (see paragraph 66 of Annex I);
 Yugoslavia (1,053) (see paragraph 38 of Annex I);
 Zaire (93) (see paragraph 52 of Annex I);
 Zambia (74) (see paragraph 53 of Annex I);
 Zimbabwe (212) (see paragraph 47 of Annex I).

II. *Other Regional Conventions and Countries*

Algeria (no patents granted) (see paragraph 72 of Annex I);
 Benin (—) (see paragraph 73 of Annex I);
 Burkina Faso (—) (see paragraph 74 of Annex I);
 Cameroon (—) (see paragraph 75 of Annex I);
 Central African Republic (—) (see paragraph 76 of Annex I);
 Chad (—) (see paragraph 77 of Annex I);
 Congo (—) (see paragraph 78 of Annex I);
 Côte d'Ivoire (—) (see paragraph 79 of Annex I);
 Democratic People's Republic of Korea (no statistical information available) (see paragraph 80 of Annex I);
 Dominican Republic (no statistical information available) (see paragraph 81 of Annex I);
 Gabon (—) (see paragraph 82 of Annex I);
 Ghana (no statistical information available) (see paragraph 83 of Annex I);
 Holy See (no patents granted) (see paragraph 85 of Annex I);
 Indonesia (no patents granted) (see paragraph 86 of Annex I);
 Jordan (no statistical information available) (see paragraph 87 of Annex I);
 Lebanon (no statistical information available) (see paragraph 88 of Annex I);
 Libya (no statistical information available) (see paragraph 89 of Annex I);
 Liechtenstein (no patents granted) (see paragraph 90 of Annex I);
 Mali (—) (see paragraph 92 of Annex I);
 Mauritania (—) (see paragraph 93 of Annex I);
 Niger (—) (see paragraph 94 of Annex I);
 Nigeria (no statistical information available) (see paragraph 95 of Annex I);
 San Marino (no patents granted) (see paragraph 96 of Annex I);
 Senegal (—) (see paragraph 97 of Annex I);
 Sudan (no statistical information available) (see paragraph 98 of Annex I);

Syria (no statistical information available) (see paragraph 100 of Annex I);
 Togo (—) (see paragraph 101 of Annex I);
 Trinidad and Tobago (no statistical information available) (see paragraph 102 of Annex I);
 Tunisia (no statistical information available) (see paragraph 103 of Annex I).

* * *

IV. INTERPRETATION OF PATENT CLAIMS (HL/CE/III/5)

Memorandum by the International Bureau of WIPO

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ANNEX I

ANNEX II

I. Introduction

- Under most, if not all, national laws and international treaties on the protection of inventions, the applicant must state in a claim what he considers to be the invention for which he seeks protection or, in other words, the subject matter which he desires to be protected.
- The possibilities of harmonizing requirements in respect of the manner of claiming in patent applications are the subject of a special study (see document HL/CE/III/2 Supp.I).
- The present memorandum deals with the interpretation of patent claims.
- The aim of interpretation of claims is to arrive at an understanding of the invention to be protected by the claims.
- In the event of litigation, the interpretation of claims is a matter for the national courts of the country in which the patent is effective.
- It is desirable that courts in different countries should arrive at the same decision as to the scope of protection conferred by the corresponding national patent.

7. Further, it is in the public interest, as well as that of the owner of the patent, that it should be possible for a patent agent or attorney to be able to advise on how the courts are likely to interpret the claims of that patent.

8. A uniform and well-understood approach to interpretation of claims is therefore desirable.

9. It must be borne in mind that, even if a harmonized system of interpretation of claims could be achieved, complete harmonization in determining the legal scope of protection of an invention in different countries cannot be achieved until harmonized requirements for description of the invention and for the manner of claiming have been adopted.

10. Even so, since harmonization of manner of claiming and requirements of description of inventions is being studied (see documents HL/CE/III/2 Supp.1 and HL/CE/III/3, respectively), it would seem to be appropriate to examine possibilities of developing at the international level a harmonized system for interpretation of claims.

II. Purpose of the Memorandum

11. The purpose of this memorandum* is:

- (i) to examine the system of interpretation of claims in different countries and the guidance at present laid down in international treaties such as the European Patent Convention (EPC);
- (ii) to explain the meaning and object of "interpretation of claims";
- (iii) to propose possible principles of a solution.

12. The examination can only be in general terms since, although national laws may require the applicant to define the subject matter for which he seeks protection by means of claims, the interpretation of the claims is determined by the practices of courts which vary from country to country and even in any one country may vary over the years or, even at any one time, from judge to judge.

III. Existing Harmonizing Legislative Provisions

13. The *European Patent Convention* (EPC) provides a system whereby one patent application filed at the European Patent Office can, after one search for prior art and one substantive examination, result in a European patent which, in each of the Contracting States for which it is granted, has the effect of and is subject to the same conditions as a national patent granted by that State (Article 2 EPC—see Annex I). The European patent effectively becomes a national patent and confers the same rights as would be conferred by a national patent granted by the national patent office (Article 64(1) EPC—see Annex I).

14. Any infringement of a European patent in a Contracting State in which it is effective is dealt with by the national law of that State (Article 64(3) EPC—see Annex I).

15. The EPC then states in Article 69(1) (see Annex I) that the extent of protection shall be determined by the terms of the claims using the description and drawings to interpret the claims. It is understood that the reference to "the terms" of the claims was introduced to suggest some degree of freedom from a literal interpretation of the words of the claim in determining the extent of protection.

16. There is also added a Protocol on Article 69 EPC (see Annex I) which gives a guideline as to how that Article should be interpreted.

17. Although some Contracting States have adopted in their national patent law the provisions of Article 69 EPC, there may still be variations in law and in practices.

18. It is to be noted that, even though the one European patent is effective in several Contracting States, the European patent confers on its owner not the same rights in each Contracting State, but, in each Contracting State, the same rights as would be conferred by a national patent granted in that State (Article 64(1) EPC—see Annex I).

19. This leads to the possibility that identical claims of a European patent following an identical description may be interpreted to provide different scopes of protection depending on the country in which the European patent is effective.

20. It is to be expected that any such differences in interpretation of claims will, at least in some countries, disappear in the course of time, particularly if a Community Patent Common Appeal Court (COPAC) is established.

21. The Protocol on the interpretation of Article 69 EPC is an attempt to achieve such harmonization, it being appreciated that even the adoption in national laws of the provisions of Article 69 EPC would not necessarily result in uniformity in interpretation of the claims. However, whilst the Protocol restricts the approach to interpretation of claims, it still leaves the degree of freedom desirable to reach a "fair" decision. Presumably the German concept of "general inventive idea" (see paragraph 46, below) was in mind when, in the Protocol, the possibility of the claim serving only as a guideline was excluded. Certainly, application of the concept runs counter to one of the objects of the Protocol, i.e., to enable third parties to be able to make predictions with a reasonable degree of certainty.

22. Article 69(1) EPC is based on Article 8(3) of the *Convention on the Unification of Certain Points of Substantive Law on Patents for Invention* (Strasbourg Convention—see Annex II). However, as indicated by the provision of the Protocol on Article 69 EPC, universal adoption in national laws of the provisions of Article 8(3) of the Strasbourg Convention would not, of itself, result in harmonization of interpretation of claims.

23. The *Patent Cooperation Treaty* provides in Article 6 that: "The claim or claims shall define the matter for which protection is sought. Claims shall be clear and concise. They shall be fully supported by the description." It does not enlarge on the protection afforded by the claims since this is a matter for national law and practice.

IV. Existing National Practices

24. Before any uniform solutions are proposed, it may be useful to outline briefly, on the basis of the information available to the International Bureau, representative practices in those eight countries in which or for which, according to the statistics published by WIPO (IP/STAT/1983/B), more than 10,000 titles of protection for inventions were granted in 1983. Those countries are Canada (20,999), France (25,043), Germany (Federal Republic of) (20,913), Japan (54,701), the Soviet Union (74,200), Switzerland (11,768), the United Kingdom (28,254) and the United States of America (56,862). The figures indicate the number of patents granted in 1983, except for the Soviet Union, where they indicate the total

* Prepared by the International Bureau with the help of Mr. D. Vincent (United Kingdom) as consultant.

number of patents and inventors' certificates granted in said year.

25. The information contained in the following paragraphs has not been verified by the industrial property offices concerned.

26. *Canada*. Section 36(2) of the Patent Act requires that: "The specification shall end with a claim or claims stating distinctly and in explicit terms the things or combinations that the applicant regards as new and in which he claims an exclusive property or privilege."

27. Rule 25 of the Patent Rules requires that: "Every claim must be fully supported by the disclosure, and a claim shall not be allowed unless the disclosure describes all the characteristics of an embodiment of the invention that are set out in the claim."

28. By Section 36(1) of the Patent Act the addressee of the specification is a person skilled in the art or science to which it appertains. The knowledge that such a person can be expected to possess is therefore taken into consideration in interpreting the claims.

29. According to court decisions the specification, which includes the claims and drawings as well as the description, is to be read as a whole in the context of the technical field to which the invention appertains. The claims are to be interpreted with reference to the description and any drawings, except where their meaning is so plain and unequivocal as to make such reference unnecessary.

30. The date relevant to the interpretation of the claims is the filing date or, if priority is claimed, the priority date.

31. Once a claim has been interpreted as indicated in the previous paragraphs, a "doctrine of equivalents" may be applied to extend the scope of protection of that claim. The application of the doctrine is not part of the interpretation of the claims and it is applied more generously in relation to major inventions than to minor inventions.

32. For the doctrine to be applied, the equivalent must function in substantially the same manner and produce the same result. However, its application is limited to what are regarded, on a proper interpretation of the claim, as non-essential elements of the claim.

33. *France*. Until 1968, the French patent system was governed by the 1844 Law under which patents did not comprise claims. Anything taught in the description of the invention was covered and protected, subject to novelty.

34. The Patent Law of 1968 required that a patent comprise claims "defining the scope of the protection demanded."

35. The Law of 1978 amended the Patent Law of 1968 by defining the function of claims in the terms of Article 69(1) EPC (see Annex I).

36. Presumably therefore the French courts will tend to interpret claims in accordance with the terms laid down by Article 69 EPC and its Protocol.

37. *Germany (Federal Republic of)*. The provisions of Article 69(1) EPC (see Annex I) have been included in Section 14 of the Patent Law of 1981. However, these provisions are applicable only to patents granted on applications filed after January 1, 1978. The paragraphs which follow reflect the situation as applicable to patents granted on applications filed before January 1, 1978. In respect of claims of patents granted on

applications filed after that date, it is expected that interpretation of them would be in accordance with the Protocol on the interpretation of Article 69 EPC.

38. In determining the scope of protection provided by the claims of patents granted on applications filed before January 1, 1978, it is necessary to consider the underlying problem which the invention solves. To do this, the technical advantages achieved by the invention must be taken into consideration. The problem set out in the description must be considered but by itself it is not decisive. Advantages not disclosed in the description may possibly be taken into account.

39. The technical means of solution of the problem must be taken from the claim; uncertainties or missing elements must be clarified by reference to the description or drawings. Features in the claim which are superfluous for solving the underlying problem are ignored.

40. The state of the art may also come into consideration as a means of interpretation insofar as it is either disclosed in the description or is part of the general knowledge of a person skilled in the art.

41. The use of "equivalents" (see paragraph 42, below) or "imperfect use" (see paragraph 43, below) is within the scope of protection if the modification is obvious for a person skilled in the art.

42. An "equivalent" is some other way which the person skilled in the art finds to solve the problem and achieve the same result using his knowledge and the contents of the patent without further invention.

43. "Imperfect use" can result from a modification of the means of solution of the problem such that a solution is not fully attained but a level is achieved which is significant for practical purposes.

44. Generally, the examination record of the patent is of little significance so far as interpretation of the claims is concerned, though it may, for example, possibly help clarify the meaning of an expression used in the description or the claims.

45. On the other hand, restrictions imposed by the examiner or waivers made by the applicant during prosecution can restrict an otherwise possible extension of the scope of protection to modifications of the invention by "equivalents" or "imperfect use."

46. However, even this extension of the scope of protection referred to in paragraph 41, above, may not lead to a result which gives fair protection to the owner of the patent. As a remedy in such cases the scope of protection may be further extended to include the "general inventive idea." The "general inventive idea" is derived from the inventive idea underlying the patent claim which idea is common to both the patented solution and the infringing subject matter. It must have a basis in the claim and must itself meet the usual requirements of patentability. Again as in paragraph 45, above, any restrictions or waivers made during prosecution can exclude protection by the "general inventive idea."

47. *Japan*. According to Section 70 of the Patent Law (Law No. 121 of April 13, 1959, as last amended by Law No. 41 of 1985), "The technical scope of a patented invention shall be determined on the basis of the statement of a claim or claims in the specification attached to the request."

48. According to Section 36(4) of that Law, "In a claim or claims there shall be stated only the indispensable constituent

features of the invention or inventions described in the detailed explanation of the invention. However, in addition, stating specific forms of the invention or inventions is not precluded."

49. Features not present in the claim but only disclosed in the description or drawings should not be taken into consideration. However, the description may be taken into consideration if:

- a term in the claim is not definite or clear;
- a term is defined in the description to have a meaning different from its ordinary meaning;
- constituents described in the claim are extremely abstract resulting in the technical meaning being unclear, in which case the claim may be restricted to the embodiment disclosed in the description.

50. A technical matter which lacks the function and technical effect of the claimed invention does not infringe even if it comes within the wording of the claim.

51. A technical matter whose object, function and technical effect are the same as those of the patented invention is not an infringement unless there is identity of the constituents with those of the claim.

52. Consideration of the examination record may result in a narrower interpretation of the claim.

53. Any subject matter which, judging from the description, has been deliberately excluded from the claim cannot fall within the scope of protection.

54. The technical progress of the patented invention is evaluated in relation to the prior art at the filing date or, where priority is claimed, the priority date, and consequently such prior art is relevant to interpretation of the claims.

55. Use of equivalents falls within the scope of protection where it involves a substitution which is apparent without inventive effort to those skilled in the art and the same object, function and technical effect as the patented invention is achieved. However, this does not apply in respect of features known at the filing date or, where priority is claimed, the priority date. Generally, the courts are reluctant to apply the doctrine of equivalents. They are more concerned with the interests of the public and the desirability of legal certainty as to the scope of a claim.

56. *Soviet Union.* According to Section 44 of the Statute on Discoveries, Inventions and Rationalization Proposals (Statute), the description must end with claims which are the only criteria for defining the scope of the invention; the claims must be in the form of a briefly worded statement indicating the essence of the invention from a technical viewpoint. The statement as a rule is in two parts, a first part containing the features which are general to both the invention and the nearest prior art, and a second part containing the features which distinguish the invention from the nearest prior art (Item 75 of the Instructions for the Drafting of Applications in Respect of Inventions (EZ-1-74)).

57. Each feature of a claim is to be regarded as indispensable to the invention so claimed; the combination of all the features of the claim must be sufficient for achievement of the aim of the invention (Item 75, EZ-1-74).

58. Only the claims are of legal significance in determining the scope of protection of the invention (Statute, Section 44). The description and drawings are used only for a better understanding of the claims (Item 7.39 of the Instructions for State Scientific and Technical Examination (EZ-2-74)).

59. The invention is considered to be used if all the features of both parts of the claim are used (Paragraph 3 of Explanation No. 3(26) by the State Committee for Inventions and Discoveries (Ex.3(26)).

60. The scope of protection provided by the claims extends to replacement of one or more of the features of the invention by equivalents if this does not affect the essence of the invention and allows the same result to be obtained (Paragraph 4 of Ex.3(26)).

61. *Switzerland.* The Federal Law on Patents for Inventions of 1954, as revised in 1976, and the Ordinance on Patents for Inventions set out the following requirements.

62. The patent application shall so describe the invention as to enable it to be carried out by a person skilled in the art (Section 50 of the Law). This corresponds to Article 83 EPC.

63. The invention shall be defined in one or more claims (Section 51(1) of the Law), and the claims shall be supported by the description (Section 29(2) of the Ordinance). This corresponds to Article 84 EPC.

64. The claims shall determine the extent of protection conferred by the patent (Section 51(2) of the Law) and the description and drawings shall be used to interpret the claims (Section 51(3) of the Law). This corresponds to Article 69 EPC.

65. In substance, the well-established approach of the Swiss courts to interpretation of claims under the old Law was in line with the present requirements.

66. Further, in the Federal Law, infringement is defined as unlawful use of the patented invention and specifically includes imitation (Section 66(a) of the Law).

67. *United Kingdom.* Section 125 of the Patents Act 1977 incorporates as nearly as practicable the provisions of Article 69(l) EPC and the Protocol thereto (see Annex I).

68. In relation to the previous Patents Act 1949, a patent judge explained in a High Court decision (reported in 1976 RPC 234) that:

"The first task in any patent action is to consider the specification and without regard to considerations touching the issues of validity and infringement, to come to a conclusion as to what is the area of the monopoly claimed. This cannot of course be done on a mere consideration of the language of the claims, for they must be dealt with in the light of the teaching in the body of the specification and against the background of the knowledge generally available to those working in the field to which the patent relates."

It will be noted that this is in conformity with Article 69(l) of the EPC.

69. The courts have also held that a claim must be given the same interpretation for both infringement and validity, and these questions are normally tried concurrently.

70. If the alleged infringement falls outside the scope of the claim as interpreted, there is only a limited application of an "equivalent" rule. It is only when features of the claim interpreted as being inessential are replaced by equivalents that infringement can arise.

71. The inclusion of a feature in a claim normally suggests that it is essential and it is difficult to persuade a court that it is inessential.

72. In a decision of the House of Lords (1982 RPC 183-245), it has been held that a patent specification should be given a purposive construction rather than a purely literal one. The question was said to be whether persons skilled in the art would understand that strict compliance with a word or phrase in a claim was intended by the applicant to be an essential requirement.

73. *United States of America*. Section 112 of United States Code Title 35—Patents (35 USC) requires in part that: “The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.”

74. The general approach to interpretation of claims is that the protected subject matter is determined by the bare literal words of the claim; the infringer must use each and every element of the claim.

75. The description may be referred to if necessary to resolve apparent ambiguity in the claims and to define any terms used by the applicant in a specialized or unusual way.

76. In an exception to this general approach a “doctrine of equivalents” may be applied. Under this doctrine, a claim may be interpreted to include an equivalent to what is literally expressed.

77. An equivalent is that which performs substantially the same function in substantially the same way to give substantially the same result as is literally expressed in the description.

78. By application of this “doctrine of equivalents,” claims may provide a broader scope of protection against an infringer who uses the essence of the invention whilst avoiding literal infringement.

79. The degree by which the equivalent can differ from what is literally expressed and yet result in a holding of infringement can vary depending on the merit of the invention. In patents which relate to major inventions a broader range of equivalence can be considered than in patents which relate to minor inventions.

80. The examination record (file wrapper) can be a significant factor in the application of the “doctrine of equivalents” since, if it appears from the examination record that, during prosecution, the applicant narrowed his claim by amendment in order to obtain allowance of the application, this may have an adverse effect on the scope for application of the doctrine.

81. Another part of 35 USC 112 provides that:

“An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.”

82. Accordingly, this can give rise to another exception to literal interpretation in that a claim may be interpreted to cover what is described in the description and equivalents thereof.

V. Meaning of “Interpretation” of Claims

83. In reviewing existing practices, two possible meanings of “interpretation” of claims become apparent:

(i) interpretation in the sense of determining the content of the claims, i.e., understanding the invention, which involves:

- understanding the words used in the claims and, if necessary, defining the technical meaning of the terms employed and clarifying any ambiguities; and
- understanding the substance of the claims which, if necessary, must be interpreted in the light of the general knowledge of the man skilled in the art at the filing date or, if priority is claimed, the priority date, and possibly of the examination record of the patent, if any;

(ii) interpretation in the sense of determining the scope of protection of the claim, which involves going on from (i) to a determination of how far the “content” of the claim can be deviated from, e.g., by use of equivalents or only partial use, without going outside the field of protection for the invention provided by the claim.

84. It is this second interpretation which is called for in considering infringement of the patent.

85. It might be noted that the patent office examiner in considering patentability of the invention needs to interpret the claim in the sense of determining its content. This is necessary to identify the invention and relate it to the prior art. However, insofar as any consideration of “equivalents” is involved in the patent office examination, it should be limited to whether the invention as claimed is the equivalent of prior art, i.e., is obvious in view of the prior art.

86. In determining infringement, the court, having interpreted the claim in the first sense, may need to go on to consider whether or not the alleged infringement, whilst not using the invention as claimed by identical means, has used the invention by equivalent means. If the claim is interpreted in this way for the purpose of determining infringement, then validity should be determined on the same basis.

87. “Equivalence” should be judged on the basis of what is regarded as “equivalent” in the light of the general knowledge of the person skilled in the art at the filing date or, if priority is claimed, the priority date, without use of inventive effort. The degree of competence of such a person will depend on the nature of the invention.

VI. Arguments in Favor of a Uniform Solution

88. The formulation of a harmonized basis for interpretation of claims should aim at providing a balance between the interests of the owner of the patent and those of the public.

89. The interests of the owner of the patent require that the scope of protection provided by the patent should not be restricted to the scope of the claim as interpreted literally.

90. Because of the importance in almost all countries of being the first to file, the description and claims may be drafted and the patent application filed before the invention has been fully evaluated, or its underlying basic principles determined, or a range of variations on its features as initially conceived investigated. At such time, even with the assistance of a skilled patent agent or attorney, it may not be possible to foresee all aspects, all possible applications or all modifications of the initial conception, or the problems which may arise from subsequently noted prior art.

91. Any resulting deficiency in the application cannot provide a justification for employing, in the interpretation of the claims, any information on the invention additional to that contained in the description. Neither should it be a reason for

regarding the claim only as a guideline and trying to abstract from it and the description a "general inventive idea." However, it is a reason for not restricting the patent protection to the strict literal meaning of the claim.

92. The interests of the public require that in as many cases as possible the question of whether or not a claim is infringed should be determinable without recourse to the courts. Although this question may sometimes arise from an attempt to take the benefit of the invention without compensating the owner of the patent, it much more often arises from a well-intentioned desire to ensure that what one has in mind to do will not be an infringement.

93. A more detailed, harmonized basis for interpretation of claims should, therefore, not merely result in more consistent decisions in the difficult cases which go to litigation; it should also be of great assistance to the patent and legal profession in advising clients in the far greater number of matters which are settled out of court or which do not even call for involvement of the other party.

VII. Desirability of Action at the International Level

94. A proposal for unification of interpretation of claims has been made in Article 8 of the Strasbourg Convention (see Annex II). This has been specifically adopted in the EPC, with the addition of a Protocol (see Annex I), and subsequently in the national laws of several countries parties to the EPC.

95. The International Association for the Protection of Industrial Property (AIPPI) later studied the question of interpretation of patent claims and concluded that a "middle way" incorporating the features of Article 69 EPC and the Protocol would be a good basis for harmonization. A resolution on the matter was adopted at an AIPPI Congress held in 1980 (see AIPPI Annuaire 1981 Resolution on Question 60). That Resolution and associated papers have been taken into consideration in drafting the present memorandum.

96. It seems to be evident that it is desirable to examine the problem of interpretation of patent claims and to develop harmonizing provisions which could be adopted in as many international and national systems as possible. Such action must take place at the international level. The harmonizing provisions could be formulated either in an international treaty or in a recommendation adopted by a competent body, such as the Assembly of the Paris Union for the Protection of Industrial Property. While a recommendation might have the advantage that it can be adopted relatively easily, it has the disadvantage that it probably would not create sufficient momentum for changing national laws and practices. The adoption of treaty provisions would be much more adequate. Such provisions should be included in the envisaged treaty dealing with various aspects of the harmonization of laws for the protection of inventions.

97. The objective would be to provide a basis for interpretation of claims which would establish a fair balance between the interests of the owner of the patent and those of the public.

VIII. Principles of a Solution

98. It is in the general interest that, so far as national circumstances permit, corresponding patents benefiting from the same date and claiming the same invention should have the same effect in each country in which they exist.

99. It is in the interest of the owner of the patents, and indeed it is equitable, that the owner should be able to assume that a patent provides the same protection in each country for which it is granted.

100. It is in the interest of the public, particularly of manufacturers and industrial users, that they should be able to assume that the rights provided by corresponding patents in different countries should have the same limits in each country.

101. It is in the interest of both the owner of the patents and of the public affected by the patents that their professional advisers should be able to give an opinion on the scope and limitations of the rights they provide which is applicable to each of the countries in which the patents are granted.

102. The problem is to provide such consistency from country to country. A great advance towards the solution of this problem will be made if harmonization of requirements for description of the invention and for the manner of claiming of the invention can be achieved. A further step would be a treaty provision aiming at harmonizing the interpretation of claims. It would then be hoped that judges in different countries, when considering harmonized claims based on harmonized descriptions in the light of such a treaty provision on interpretation and the same evidence by technical experts, would reach comparable decisions. It is appreciated that a precisely detailed unified system of interpretation cannot be laid down, but such harmonization as can be achieved in respect of manner of description and manner of claiming and in the approach to interpretation of claims could at least provide a good legal basis from which the courts can start.

103. Further, a more standardized international approach to interpretation of claims must inevitably be paralleled by a more standardized, and therefore more predictable, national approach to interpretation of claims. A consequence of a system of interpretation of claims in which more comparable and consistent decisions can be reached will be a greater feeling of certainty generally when either the owner of a patent or a third party has to consider infringement and validity problems.

104. The harmonization of the requirements for description and claiming of inventions is the subject of separate studies. In this study the following principles to be applied in the interpretation of claims are put forward.

105. The principles to be embodied in an international treaty could be drafted as follows:

(1) The extent of the protection conferred by the patent shall be determined by the claims.

(2) The description and drawings, and if necessary the general knowledge of the person skilled in the art at the filing date or, where priority is claimed, the priority date to which the claims are entitled, shall be used to interpret the claims as to content.

(3) A claim shall confer protection against use of the invention involving all those features of that claim so interpreted as to content which are sufficient and necessary for realization of the invention (hereinafter referred to as "essential features"). Use of any other features of the claim shall give rise to infringement only if all essential features are also involved.

(4)(a) A claim shall also confer protection against use of the invention involving substitution of an equivalent for an essential feature of that claim, provided that:

(i) the other essential features of the invention are also used,

(ii) the equivalent functions, with respect to the invention as claimed, in substantially the same manner and produces substantially the same result, and

(iii) no statement by the applicant or owner of the patent in the description or the official file on the patent excludes such use of the equivalent from the protection.

(b) The equivalent referred to in subparagraph (a) need not have been known at the filing date or, where priority is claimed, the priority date to which the claim is entitled.

(c) The provisions of subparagraphs (a) and (b) may apply where more than one essential feature is substituted.

(5) A claim shall confer protection against use of the invention involving essential features, or equivalents as referred to in principle (4), together with an additional feature, provided that the additional feature does not result in a substantial change in the invention.

(6) A claim for a combination shall not provide independent protection for separate features of the combination, and a claim expressly referring to another claim shall not provide protection for the features it contains independently of the features of the claim to which it refers.

(7) A claim so interpreted shall serve as the basis for consideration equally of infringement and patentability.

IX. Commentary on the Principles of a Solution

106. *Principle (1)*: It is now a feature of the patent law of most countries that the extent of protection conferred by a patent is determined by the claims.

107. *Principle (2)*: It is increasingly being accepted that the description and drawings must be used to interpret the claims. It is also well established in most countries that the description is intended to be read by a person skilled in the art who is expected to apply his general knowledge. The state of his general knowledge to be applied should be that existing at the filing date or, where priority is claimed, the priority date to which a claim being interpreted is entitled.

108. It is possible that, as provided by Article 4F of the Convention of Paris for the Protection of Industrial Property, different claims in a patent are entitled to different dates. This is usually because the patent application was based on a priority document but contained additional matter. In such a case, claims based on the disclosure in the priority document are entitled to the date of filing of the priority document but claims based on the broader disclosure in the application as filed are entitled only to the date of filing of the application. It seems equitable that the state of general knowledge to be applied should be that existing at the date to which the claim being interpreted is entitled.

109. *Principle (3)*: The implication of the words "all those features of that claim so interpreted as to content which are sufficient and necessary for realization of the invention" is that interpretation of the claims on the basis set out under principle (2) may indicate that only some of the features of the claim are essential for realization of the invention. If so, then, according to principle (3), infringement can occur if only these "essential" features are used. This is a contentious point since it can be argued that the mere fact that a feature is present in a claim indicates that it is essential and must be used before it can be held that the claim is infringed. However, as pointed out in paragraph 88, above, an objective in interpreting claims should be to strike a balance between the interests of the owner of the patent and those of the public. For this reason it is considered that, bearing in mind the points referred to in paragraph 90, above, infringement should occur even when only the "essential" features of the claim are used. But use of all

the "essential" features is necessary. Use of a feature or features which, though initially written into the claim by the applicant, can be seen after further consideration to be not essential to making use of the invention and deriving the benefit of it will not give rise to infringement unless the "essential" features of the claim are also used.

110. *Principle (4)*: This extends the protection conferred by the claim to the use of an equivalent for a feature interpreted according to principle (3) as being "essential." It is possible that more than one "essential" feature may be substituted by an equivalent without detracting from the protection conferred by the claim. However, how far such substitution can go and infringement still occur will depend to a large extent on the technical evidence as to the cumulative effect of the substitutions and the view to be taken of the balance of interests referred to in paragraph 88, above.

111. The use of equivalents also raises a contentious point since in some national practices infringement when using an equivalent for a feature of the claim can only be considered if it is an "inessential" feature which is being substituted. Again, for the reason set out in paragraphs 88 and 90, above, it is considered that the courts in interpreting a claim should be able to consider infringement in circumstances where, as provided in principle (4)(a)(ii), the benefit of the invention is derived even when an "essential" feature of the claim is substituted. For the same reason, the equivalent need not have been known at the filing date or, if priority is claimed, the priority date to which the claim is entitled. The interests of the owner of the patent should not be prejudiced when an equivalent which meets the requirements of principle (4)(a)(ii) is the result of a later development.

112. As to the third proviso of principle (4), it seems justifiable that account should be taken of the examination record (by which is meant the patent office record of the examination of the application). If during examination the applicant has deliberately excluded matter, for example, by way of defining a term or by deletion of a feature of the invention as described or by explanation of the distinction between the invention and the prior art or by adding a feature to the claim, it is considered that these are matters which should be taken into account in determining the extent of the protection conferred by the patent. For the same reason, similar account should be taken of the record of opposition proceedings or proceedings for invalidation of the patent. The term "official file on the patent" is therefore used to include the record of all such proceedings.

113. *Principle (5)*: This provides that use of a further feature in addition to those present in the claim does not avoid infringement provided the added feature does not result in a substantial change in the claimed invention (e.g., in its form or function). This means that an improvement on, or a selection from the field of, the claimed invention, even if the improvement or selection is itself patentable, may still be held to be an infringement.

114. *Principle (6)*: In the barring of protection for individual features of a claim, the need for protection against contributory infringement must be borne in mind. Contributory infringement can arise when a person offers to supply a means essential for putting the claimed invention into effect knowing, or it being obvious, that the means is intended to be used for that purpose. This can be very damaging to the owner of the patent since it may not be easy to deal with infringing acts of the users of the means being offered. However, the provisions of principle (6) should not bar action against a contributory infringer since the action would not be based simply on the fact that the means is a separate feature of a claim but on the fact that the means is intended for use in an infringing combination of the features of the claim.

115. *Principle (7)*: This is to counter the possibility of claims being given a broad interpretation for one purpose and a narrow interpretation for another.

Annex I

European Patent Convention

Article 2 European patent

(1) Patents granted by virtue of this Convention shall be called European patents.

(2) The European patent shall, in each of the Contracting States for which it is granted, have the effect of and be subject to the same conditions as a national patent granted by that State, unless otherwise provided in this Convention.

Article 64 Rights conferred by a European patent

(1) A European patent shall, subject to the provisions of paragraph 2, confer on its proprietor from the date of publication of the mention of its grant, in each Contracting State in respect of which it is granted, the same rights as would be conferred by a national patent granted in that State.

(2) If the subject-matter of the European patent is a process, the protection conferred by the patent shall extend to the products directly obtained by such process.

(3) Any infringement of a European patent shall be dealt with by national law.

Article 69 Extent of protection

(1) The extent of the protection conferred by a European patent or a European patent application shall be determined by the terms of the claims. Nevertheless, the description and drawings shall be used to interpret the claims.

(2) For the period up to grant of the European patent, the extent of the protection conferred by the European patent

application shall be determined by the latest filed claims contained in the publication under Article 93. However, the European patent as granted or as amended in opposition proceedings shall determine retroactively the protection conferred by the European patent application, in so far as such protection is not thereby extended.

Protocol on the Interpretation of Article 69 of the Convention

Article 69 should not be interpreted in the sense that the extent of the protection conferred by a European patent is to be understood as that defined by the strict, literal meaning of the wording used in the claims, the description and drawings being employed only for the purpose of resolving an ambiguity found in the claims. Neither should it be interpreted in the sense that the claims serve only as a guideline and that the actual protection conferred may extend to what, from a consideration of the description and drawings by a person skilled in the art, the patentee has contemplated. On the contrary, it is to be interpreted as defining a position between these extremes which combines a fair protection for the patentee with a reasonable degree of certainty for third parties.

Annex II

Convention on the Unification of Certain Points of Substantive Law on Patents for Invention

Article 8

1. The patent application shall contain a description of the invention with the necessary drawings referred to therein and one or more claims defining the protection applied for.

2. The description must disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

3. The extent of the protection conferred by the patent shall be determined by the terms of the claims. Nevertheless, the description and drawings shall be used to interpret the claims.

Studies

Service Mark Protection in the Benelux States

L. van BAUWEL*

News Items

The International Union for the Protection of New Varieties of Plants (UPOV) in 1986

State of the Union

There was no change during 1986 in the number of member States, which therefore remained at the previous year's figure of 17: Belgium, Denmark, France, Germany (Federal Republic of), Hungary, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, South Africa, Spain, Sweden, Switzerland, United Kingdom, United States of America.

It was, on the other hand, noteworthy for an increase in the number of States bound by the Revised Act of the Convention of October 23, 1978: Germany (Federal Republic of) and Italy deposited their instruments of ratification of that Act on March 12 and April 28, respectively. The Act entered into force for those two States on April 12 and May 28, 1986, respectively. It is now binding on 15 of the 17 member States (Belgium and Spain have not yet ratified it).

Staff of the Office of the Union

Mr. Heribert Mast, Vice Secretary-General of the Union since March 1, 1974, resigned on August 11, 1986, for reasons of health. He died shortly afterwards. Mr. Walter Gfeller, Head of the Swiss Office for the Protection of New Varieties and a member of the UPOV Council since 1977, when Switzerland became a member State of UPOV, succeeded him on November 30, 1986.

Sessions

During 1986, the various bodies of UPOV met as described below. Unless otherwise specified, the sessions took place in Geneva.

Council

The Council held three sessions in 1986 under the chairmanship of Mr. J. Rigot (Belgium): the sixth extraordinary session on September 29, the seventh extraordinary session in Paris (France) on December 1 and the twentieth ordinary session, also in Paris, on December 2. The latter date and place were appointed

for the celebration of the twenty-fifth anniversary of the UPOV Convention (signed on December 2, 1961).

At its *sixth extraordinary session*, the Council appointed a new Vice Secretary-General.

At its *seventh extraordinary session*, the Council noted the intention of the Minister of Agriculture of France to decorate the President of the Council, Mr. J. Rigot, and the Secretary-General, Dr. A. Bogsch, with the insignia of Officer of the Order of Agricultural Merit.

Whereas the extraordinary sessions were confined strictly to delegations of member States, the *twentieth ordinary session* of the Council took place with the participation of observers from Argentina, Finland, Norway and Poland and also the European Economic Community (EEC) and the Food and Agriculture Organization of the United Nations (FAO).

At that session, the Council:

(i) approved the report of the Secretary-General on the activities of the Union in 1985 and the first nine months of 1986, the report on his management and the financial situation of the Union in 1985, and the accounts of the Union for 1985;

(ii) renewed the mandate of Switzerland as auditor of the UPOV accounts up to the end of the 1989 financial year;

(iii) approved the progress reports on the work of its various subsidiary bodies and their plans for future work;

(iv) elected Mr. S.D. Schlosser (United States of America) and Mr. W.F.S. Duffhues (Netherlands) President and Vice-President, respectively, of the Council for a term of three years, expiring at the end of the twenty-third ordinary session of the Council in 1989, Mr. J.K. Doodson (United Kingdom) and Mr. G. Fuchs (Federal Republic of Germany) Chairman and Vice-Chairman, respectively, of the Technical Committee, for the same term, and extended by one year the term of Mrs. V. Silvey (United Kingdom) at the head of the Technical Working Party on Automation and Computer Programs.

With regard to the work of subsidiary bodies, the Council mainly decided on the principle of a revision of the Convention for the purpose of further improving it, and even extending it to other types of living material. It

also adopted the UPOV Recommendations on the Harmonization of the Lists of Protected Species. It took note of a motion by the Vegetable Seed Section of the International Federation of the Seed Trade (FIS) relating to the extension of the scope of protection pursuant to Article 5(4) of the Convention, and stressed the importance of the Recommendation on Article 5 of the Convention adopted at the 1978 Diplomatic Conference. Finally, it noted the Technical Committee's decision to introduce a new statistical method for interpreting distinctness data for grasses (combined over-years analysis) and to look into the possibilities of using that method for other species also.

Symposium

The twentieth ordinary session of the Council was followed, on December 2 and 3, 1986, by a Symposium in honor of the 25th anniversary of the UPOV Convention. The program consisted of three addresses, two lectures and a debate. The addresses were given by the President of the Council of UPOV, Mr. J. Rigot (Belgium), the Secretary-General, Dr. A. Bogsch, and, on behalf of the French Minister of Agriculture, Mr. H.P. Culaud, Deputy Director of the Minister's Office. The first lecture, on the subject of "The Contribution of Plant Breeding to Food Production," was given by a breeder from the private sector, Dr. C. Mastenbroek (Netherlands), who among other things had been President of the International Association of Plant Breeders for the Protection of Plant Varieties (ASSINSEL) from 1980 until the summer of 1986. The second lecture was on "Plant Breeding: A Common Undertaking for Laboratories, Experimental Networks and Firms"; it was given by a research scientist from the public sector, Mr. A. Cauderon, at present Director of the French Genetic Resources Offices and Chairman of the Standing Technical Committee on Breeding (CTPS), member of the Institut de France (Academy of Sciences) and Perpetual Secretary of the French Academy of Agriculture.

The Symposium was followed by visits to French plant breeding stations and bodies, both public and private, on December 4 and 5.

Those present at the Symposium consisted of the participants in the Council session, representatives of the International Seed Testing Association (ISTA), members of seven international non-governmental organizations (International Association of Horticultural Producers (AIPH), International Association for the Protection of Industrial Property (AIPPI), International Association of Plant Breeders for the Protection of Plant Varieties (ASSINSEL), International Community of Breeders of Asexually-Reproduced Ornamental and Fruit Tree Varieties (CIOPORA), Association of Plant Breeders of the European Economic Community (COMASSO), Seed Committee of the Common Market (COSEMCO) and the International Federation of the Seed Trade (FIS)), individual

participants and a number of French personalities. The "Fathers of the Convention" and the retired former Presidents of the Council also took part in the Symposium as guests of honor.

Administrative and Legal Committee and Biotechnology Subgroup

The Administrative and Legal Committee held two sessions in 1986 under the chairmanship of Mr. F. Espenhain (Denmark), its seventeenth on April 16 and 17 and its eighteenth on November 18 and 19. An observer from the EEC took part in each of those sessions. The Biotechnology Subgroup of the Committee also met twice, on the eve of each of the Committee sessions.

At its two sessions, the Committee considered a number of subjects relating to: (i) the application of the Convention to botanical genera and species (Article 4 of the Convention); (ii) the scope of protection (Article 5); (iii) minimum distances between varieties (Articles 5 and 6); (iv) variety denominations (Article 13); and (v) biotechnology and plant variety protection.

Technical Committee

The Technical Committee held its twenty-second session on November 20 and 21, 1986, under the chairmanship of Mr. J.-M. Elena Rossello (Spain). The session was attended by an observer from the Commission of the European Communities.

On the basis of preparatory work carried out by the Technical Working Parties, the Technical Committee adopted six Test Guidelines (for Apple, Elatior Begonia, Impatiens, Juniper, Potato and Raspberry) and examined a number of questions that had arisen from the practical experience gained by the offices of member States when conducting tests for distinctness, homogeneity and stability in the framework of their examination of new varieties.

Technical Working Parties

The *Technical Working Party on Automation and Computer Programs* held its fourth session in Hanover (Federal Republic of Germany) from May 21 to 23, 1986.

The most important subject considered by this Working Party had to do with the testing of varieties for homogeneity. For self-pollinated plants, the Working Party recommended steps for greater harmonization of the methods of interpreting data used by member States. For cross-pollinated varieties, it continued studying a new, more elaborate and statistically more reliable testing method.

The *Technical Working Party for Agricultural Crops* held its fifteenth session in Dublin (Ireland) from June 4 to 6, 1986.

The main task of this and the following Working Parties consists in drawing up or revising Test Guide-

lines, which are of great importance because, among other things, they define the variety concept for the species under consideration. In that connection the Working Party concerned itself more especially with the documents on Lucerne, Turnip, Turnip Rape and Triticale. Another activity which in the long run has considerable implications for the actual variety concept, and consequently for the activities of UPOV, consists in studying the practical possibilities offered by electrophoresis tests on wheat varieties. The work on this subject will continue.

The *Technical Working Party for Fruit Crops* held its seventeenth session in Wädenswil (Switzerland) from September 17 to 19, 1986.

The Working Group mainly worked on the establishment or revision of Test Guidelines on Guava, Gooseberry, Macadamia and Mango.

The *Technical Working Party for Ornamental Plants and Forest Trees* held its nineteenth session in Wageningen (Netherlands) from July 16 to 18, 1986.

The Working Party concentrated on the establishment or revision of the Test Guidelines for Alstroemeria, Gladiolus, Pelargonium (zonal and ivy-leaved) and Show and Fancy Pelargonium.

The *Technical Working Party for Vegetables* held its nineteenth session in Salerno (Italy) from May 27 to 29, 1986.

The Working Party worked mainly on the establishment or revision of Test Guidelines for Egg Plant, for Endive, for Vegetable Marrow, Pumpkin, for Melon and for Turnip, Turnip Rape.

Contacts with States and Organizations

On January 10, 1986, an Information Meeting was held on biotechnology and intellectual property, organized jointly by UPOV and WIPO. Representatives of plant variety protection offices, industrial property protection offices and professional circles that made use of one or other form of protection (or both) took part in the Meeting.

Publications

In 1986, the Office of the Union published three issues of *Plant Variety Protection*; the *Collection of Plant Variety Protection Laws and Treaties* (UPOV publication No. 651(E) and a supplement; and two supplements to the *Collection of the Texts of the UPOV Convention and Other Important Documents Established by UPOV* (UPOV publication No. 644(E), (F) and (G)).

Calendar of Meetings

WIPO Meetings

(Not all WIPO meetings are listed. Dates are subject to possible change.)

1987

- June 29 to July 3 (Geneva) — Committee of Experts on Biotechnological Inventions and Industrial Property (Third Session)
- July 1 to 3 (Geneva) — Rome Convention: Intergovernmental Committee (Ordinary Session) (convened jointly with ILO and Unesco)
- September 7 to 11 (Geneva) — Permanent Committee on Patent Information (PCPI) and PCT Committee for Technical Cooperation (PCT/CTC)
- September 14 to 19 and 22 (Geneva) — Consultative Meeting on the Revision of the Paris Convention (Fourth Session)
- September 21 to 30 (Geneva) — Governing Bodies (WIPO General Assembly, Conference and Coordination Committee; Assemblies of the Paris, Madrid, Hague, Nice, Lisbon, Locarno, IPC, PCT, Budapest, TRT, Vienna and Berne Unions; Conferences of Representatives of the Paris, Hague, Nice and Berne Unions; Executive Committees of the Paris and Berne Unions; Committee of Directors of the Madrid Union; Council of the Lisbon Union): Ordinary Sessions
- October 5 to 9 (Geneva) — Committee of Governmental Experts on Works of Applied Art (convened jointly with Unesco)
- November 2 to 6 (Geneva) — Committee of Experts on the Harmonization of Certain Provisions in Laws for the Protection of Inventions (Fourth Session)
- November 23 to December 4 (Geneva) — Permanent Committee on Patent Information (PCPI): Working Group on Search Information
- December 3 and 4 (Geneva) — Joint Unesco-WIPO Consultative Committee on the Access by Developing Countries to Works Protected by Copyright (convened jointly with Unesco)
- December 7 to 11 (Geneva) — Committee of Governmental Experts on the Printed Word (convened jointly with Unesco)

UPOV Meetings

1987

- October 13 and 14 (Geneva) — Technical Committee
- October 15 and 16 (Geneva) — Administrative and Legal Committee
- October 17 (Geneva) — Subgroup on Biotechnology
- October 19 (Geneva) — Consultative Committee
- October 20 and 23 (Geneva) — Council
- October 21 and 22 (Geneva) — Meeting with International Organizations

Other Meetings Concerned with Industrial Property

1987

- July 20 to 22 (Cambridge) — International Association for the Advancement of Teaching and Research in Intellectual Property: Annual Meeting
- September 1 to 4 (Warwick) — British Library Japanese Information Service: International Conference on Japanese Information in Science, Technology and Commerce
- September 4 to 6 (Stockholm) — International League for Competition Law: *Journées d'études*
- September 22 to 25 (Strasbourg) — Center for the International Study of Industrial Property: Seminar on Licensing and the Transfer of Technology (second module: Strategy and Procedures for the Transfer of Technology)
- December 7 to 11 (Munich) — European Patent Organisation: Administrative Council

1988

- June 27 to July 1 (Cannes) — International Federation of Industrial Property Attorneys: World Congress
- September 15 to 18 (Angers) — International League for Competition Law: 30th Congress

