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WIPO Meetings

Paris Union

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

Fourth Session
(Geneva, November 2 to 6, 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 fourth session¹ in Geneva from November 2 to 6, 1987. The following States were represented at the session: Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Denmark, Egypt, Finland, France, Germany (Federal Republic of), Hungary, Ireland, Italy, Japan, Madagascar, Mexico, Netherlands, Norway, Portugal, Republic of Korea, Soviet Union, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States of America, Uruguay (30). Honduras, Lesotho, Pakistan, Panama, Qatar and Venezuela were represented as observers. In addition, a representative of one intergovernmental organization and 30 non-governmental organizations participated in an observer capacity. The list of participants follows this Note.

The Committee of Experts considered eight questions: two for the fourth time, three for the third time and three for the second time. It also considered three information documents.

The two questions that had already been considered by the Committee of Experts in its first, second and third sessions (July 1985, May 1986 and March 1987) concern: (i) the grace period for public disclosure of an invention before filing an application; and (ii) the requirements in respect of the granting of a filing date to a patent application. Explanations on the latter question (concerning the filing date) were presented to the Committee of Experts in a memorandum prepared by

the International Bureau of WIPO and reproduced in full in *Industrial Property*, 1986, pp. 312 to 320. 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 of WIPO, whose text was reprinted *in extenso* in *Industrial Property*, 1984, pp. 314 to 327.

The three questions that had already been considered by the Committee of Experts in its second and third sessions (May 1986 and March 1987) 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; and (iii) the prior art effect of previously filed but yet unpublished patent applications. The memoranda prepared by the International Bureau of WIPO on those three questions were reproduced in full in *Industrial Property*, 1987, pp. 255 to 276.

The three questions already considered by the Committee of Experts, but only once, namely, in its third session (March 1987), 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) the extent of protection and interpretation of patent claims. The memoranda prepared by the International Bureau of WIPO on those three questions were reproduced in full in *Industrial Property*, 1987, pp. 209 to 234.

The Committee of Experts also considered three information documents. They deal with (i) exclusions from patent protection, (ii) duration of patents, maintenance fees, provisional protection of applicant, prior users' rights, and (iii) restoration of the right to claim priority. The first two of those documents are reproduced following this Note (documents HL/CE/IV/INF/1 and 2).

* Prepared by the International Bureau of WIPO.

¹ For Notes on the first, second and third sessions, see *Industrial Property*, 1985, p. 267, 1986, p. 309 and 1987, p. 204.

Three questions were not considered in the fourth session of the Committee of Experts, but they are scheduled for consideration in one or several of the future sessions. They deal with the following: (i) naming of the inventor and declaration concerning the entitlement of the applicant (a memorandum prepared by the International Bureau concerning this question was reproduced in full in *Industrial Property*, 1986, pp. 320-324), (ii) rights conferred by a patent (no preparatory documents were presented so far) and (iii) extension of process protection to products; reversal of the burden of proof (a memorandum prepared by the International Bureau was reproduced in full in *Industrial Property*, 1987, pp. 276 to 281).

The discussions of the fourth session of the Committee of Experts were based on the document drawn up by the International Bureau and entitled "Draft Treaty on the Harmonization of Certain Provisions in Laws for the Protection of Inventions; Draft Regulations" (document HL/CE/IV/2) (hereinafter referred to as the "draft Treaty" and "the draft Regulations," respectively) as well as on written proposals submitted by government delegations. They are quoted hereafter together with the relevant portions of the report on the discussion of the Committee ("the report" constitutes document HL/CE/IV/6).

Filing Date

Article 101 of the draft Treaty as submitted by the International Bureau to the Committee of Experts read as follows:

"(1) For the purposes of granting a filing date to an application, any national law shall require that the application contain 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 of the invention for which a patent is applied for; however, any national law may provide that, where an application claims the priority of a previous application for the same invention, the said part may be replaced by a reference to the description contained in the said previous application, provided that the said part is filed within two months after the filing date.*

(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;*
- (iii) that, if the application refers to drawings, such drawings be included in the application, provided that, if they are not so included, the industrial property office shall notify the applicant accordingly and, if the applicant furnishes the drawings*

within the time limit fixed by the industrial property office, which shall be at least one month, the filing date shall be the date on which the drawings are received by the industrial property office and that, otherwise, any reference to the said drawings shall be considered as non-existent.

(b) Where the national law of a Contracting State contains, at the time that State becomes 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 of the said State, 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."

Rule 101 of the draft Regulations as submitted by the International Bureau to the Committee of Experts read as follows:

"(1) The applicant shall be identified by his name. For such purposes, it shall be sufficient to indicate the name of the applicant in a way which allows his identity to be established even if the name is misspelled, the given names are not fully indicated, or, in the case of legal entities, the indication of the name is abbreviated or incomplete. Where the name of the applicant is not sufficient to identify him, his address shall be indicated to the extent necessary for his identification.

(2)(a) If the industrial property office finds that the application did not, at the time of receipt, fulfill the requirements for granting a filing date under the applicable national law, it shall invite the applicant to file the required correction within a time limit fixed by the industrial property office, which shall be at least one month.

(b) If the applicant complies with the invitation, the industrial property office shall grant as the filing date the date of receipt of the required correction."

The portion of the report of the Committee of Experts concerning the discussion of Article 101 and Rule 101 reads as follows:

"With respect to Article 101(i), one delegation suggested that it be deleted, in order to limit the number of

requirements for granting a filing date. According to another opinion, that provision was necessary for countries offering a choice between different titles of protection. It was observed, however, that it might be desirable to grant a filing date even where the applicant had not clearly stated which kind of title he was applying for, for example, if he had requested a 'utility model patent.' It was concluded, however, that Article 101(1)(i) should be retained.

Concerning Article 101(1)(ii), it was suggested that the words 'in the Regulations' should be added after the words 'as prescribed' or that the words 'as prescribed' should be deleted; in any case, references to provisions of the Regulations should be uniform throughout the draft Treaty.

The Delegation of Norway, introducing its proposal concerning Article 101(1)(iii)² pointed out that a mere reference to a previous application should be permitted to be considered as sufficient for granting a filing date, even where no priority was claimed, since this was the current practice under Norwegian law and since such a possibility would be helpful in cases where the first application had not yet been published. The Delegation of Denmark supported this view.

With respect to this proposal, several delegations expressed hesitations, in particular as regards the requirement concerning the filing of a certified copy of the previous application, which they considered as cumbersome and creating an unnecessary work load for applicants and industrial property offices. Thereupon, the Delegation of Norway withdrew from its proposal the final part establishing the said requirement. The revised proposal was supported by the Delegations of Denmark, Finland, Sweden and Switzerland.

In respect of the revised proposal, attention was drawn to problems which could arise in cases where no priority was claimed if the language of the previous application was not the same as the language of the subsequent application. Moreover, it was suggested that the condition that the applicant for both applications be the same or, at least, that the applicant of the second application be the successor in title of the first application should be provided for.

The question was raised whether, in order to achieve harmonization, the solution proposed by Norway should become mandatory. Several delegations, however, expressed preference for an optional character of such a solution if it was introduced into the Treaty.

It was agreed that the next draft of Article 101(1)(iii) should include two alternative solutions, one along the lines of the present draft and one along the lines of the revised proposal of Norway.

With respect to Article 101(2)(a), the Delegations of the United Kingdom, the Republic of Korea, Ireland and the Netherlands indicated that the payment of a filing fee should be permitted to be a requirement for granting a

filing date, since even the granting of a filing date implied work for which a fee should be paid. Other delegations and observer organizations opposed this view.

Several delegations suggested deleting Article 101(2)(a)(i). It was also suggested that Article 101(2)(a)(i), if retained, and Article 101(2)(a)(iii) include a proviso similar to that in Article 101(1)(iii). The Representative of the European Patent Office expressed hesitations about supporting the deletion of Article 101(2)(a)(i), because late filing of claims would entail difficulties in establishing the search report before the publication of the application. This was of particular importance for the EPO because 95% of its applications were based on a priority, in which cases only a short time for preparing the search report was available.

Some delegations suggested deleting Article 101(2)(a)(ii), indicating that applications in any language should be accepted. Other delegations pointed to the necessity of filing in a language which could be understood by the industrial property office because otherwise it could not be determined whether the application contained a part which, on the face of it, appeared to be a description.

The Director General of WIPO proposed that Article 101(2)(a) should provide that any national law would be free to make the granting of a filing date dependent on the payment of a filing fee and on the filing, if required, of a translation of the patent application and, if these requirements had not been fulfilled at the time of filing, the industrial property office would have to invite the applicant to comply with them within a time limit (for example, two months) and subject to a surcharge, with the consequence that, if the invitation was complied with, the original date of filing would be granted as the filing date. This proposal was welcomed for further study. Some delegations were also prepared to consider whether changes in national law could be envisaged as regarded language requirements.

Attention was drawn to paperless filing procedures which would require, for example, the use of certain kinds of floppy disks. In view of the fact that, under such procedures, paper filing would remain possible, it was understood that nothing in the text of Article 101(2)(a) would prevent an industrial property office from providing for additional requirements indigenous to electronic applications, such as paperless filing procedures.

As regards Article 101(2)(b), it was pointed out that, contrary to items (i) and (ii) of Article 101(2)(a), item (iii) of the same provision was in the interest of applicants, and, consequently, its introduction in the national law should be permitted at any time. Consequently, it was decided that the said item (iii) would not be referred to in Article 101(2)(b).

Also in respect of Article 101(2)(b), the International Bureau was requested to study whether its second sentence should not be omitted or at least made inapplicable where [a] change in the national law would be necessary to align such law to a regional agreement.

With respect to Article 101(3), it was suggested to examine the possibility of deleting the second part, starting with the words 'with the exception.' In this connection, it was noted that such a deletion would require a change in the European Patent Convention.

The Delegation of the United Kingdom suggested that one should study the desirability of introducing a clarification statement in Article 101 to the effect that the requirements for a valid national application may be more

² Article 101(1)(iii) should read as follows:

"a part which, on the face of it, appears to be a description of the invention for which a patent is applied for; however, any national law may provide that, *where a previous application has been filed for the same invention, e.g., where the application claims the priority of the said previous application, the said part may be replaced by a reference to the description contained in the said previous application, provided that the said part is filed within two months after the filing date, and provided that a certified copy of the said previous application is filed within four months after the filing date of the later application or within 16 months after the priority date claimed, if any*" [document HL/CE/IV/3].

stringent than the requirements for the grant of the filing date.

Concerning Rule 101(1), one delegation raised the question whether that provision should be deleted and the relevant provisions should be included in Article 101(1)(ii), which would provide, along the lines of Article 80 of the European Patent Convention, that the indications for the identification of the patent applicant would be those provided for according to the practice of national industrial property offices. It was also suggested that the same provision should be revised to provide that a Contracting State would be free to provide less stringent requirements for the identification of the applicant.

It was agreed that the International Bureau of WIPO should study the possibility of revising paragraph (1) of Rule 101 to include less stringent requirements for the identification of the applicant.

Concerning Rule 101(2)(a), one delegation suggested that a time limit should be fixed for the invitation by the industrial property office. However it was pointed out that, since no sanctions for missing such time limit could be provided for, the providing of a time limit may not be practical. Others suggested that the said provision could provide that the industrial property office should send 'promptly,' or 'as promptly as possible,' the invitation to correct.

With respect to Rule 101(2)(b), it was noted that it would have to be adapted to the proposal referred to in paragraph 21, above."

Manner of Description

Article 103 of the draft Treaty as submitted by the International Bureau to the Committee of Experts read as follows:

"An application shall contain a description. 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."

Rule 103 of the draft Regulations as submitted by the International Bureau to the Committee of Experts read as follows:

"(1)(a) Any description drafted in accordance with the provisions of paragraph (2) shall be accepted under any national law as satisfying the requirements in respect of the manner of description.

(b) Any national law may provide for requirements in respect of the manner of description which do not contain all the requirements provided for in paragraph (2).

(2) 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 [Alternative A: prior art] [Alternative B: 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 its solution can be understood, and state the advantageous effects, if any, of the invention in relation to the [Alternative A: prior art] [Alternative B: background 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.*

(3) The description shall be presented in the manner and order specified in paragraph (2), 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.

[4) Subject to paragraph (3), each of the parts referred to in paragraph (2) shall preferably be preceded by an appropriate heading.]"

The portion of the report of the Committee of Experts concerning the discussion of Article 103 and Rule 103 reads as follows:

"The general view was that the proposed text of these provisions was in order. Paragraphs (2) to (4) of Rule 103, however, inspired discussion."

The portion of the report of the Committee of Experts concerning Rule 103(2) to 103(4) reads as follows:

"The Delegation of Japan introduced its proposal with regard to Rule 103(2)(iii).³ It underlined that the question of the advantageous effects to be disclosed expressly or implicitly in the description was of outstanding importance. All three elements of an invention, namely the problem, its solution as well as the advantageous effects of the invention, should be contained in the disclosure. Those effects were not only part of the non-obviousness or the inventive step involved in the invention. Every invention by its very nature had to have some advantageous effects, and this should be included in the description. Therefore, the Delegation was not very much in favor of an approach taken by Rule 5.1(a)(iii) of the PCT, which contained an element of doubt insofar as it read 'and to state the advantageous effects, if any, of the invention.' The Delegation said that, on the other hand, it did not intend to introduce a new requirement for patentability.

The proposal of the Delegation of Japan was supported by one delegation while several other delegations that commented on the proposal spoke against it. It was objected that the proposal of the Delegation of Japan could be interpreted as introducing a new element of patentability, in addition to novelty, inventive step and industrial applicability. It was pointed out that, in many cases, the effects of an inventive solution to a technical problem

³ Rule 103(2)(iii) should read as follows:

"disclose the invention, as claimed, in such terms that the technical problem (even if not expressly stated as such), its solution and the advantageous effects (even if not expressly stated as such) of the invention can be understood in relation to the prior art;" [document HL/CE/IV/4].

might be doubtful at the time the application was filed and perhaps, during the later prosecution of the application, the advantageous effects could no more be added. Other delegations underlined that the wording of Rule 5.1(a)(iii) of the PCT had to be considered as making the disclosure of advantageous effects of the invention mandatory wherever such effects existed.

The Delegation of the United States of America doubted whether the rule on the manner of description was at all useful. Such rule was clearly based on an approach applied in a particular regional system and could not be used as a basis for worldwide harmonization of patent procedure and practice. The Delegation proposed that, in Rule 103(2)(i), the word 'technical' be deleted and, in Rule 103(2)(ii), reference should be made to 'background' as such and not to 'background art.' Also, in Rule 103(2)(iii), the word 'technical' should be deleted. In respect of Rule 103(2)(v), the Delegation raised the problem of the 'best mode' requirement. In its view, the same solution as contained in Rule 5.1(a)(v) of the PCT Regulations should apply, putting the 'best mode' requirement into the foreground and leaving the freedom to Contracting States to maintain different requirements under their national laws. A misinterpretation was also possible in that the disclosure of manufacturing data might be required by the proposed phrase 'in detail.' With regard to Rule 103(2)(vi), the wording 'exploitation in industry' could be looked upon as being an unnecessary limitation to industry in a narrow sense, excluding other fields of industrial activity, for example, activities in university research laboratories.

The Director General proposed that, since many countries were already bound by the PCT provisions, that solution should simply be adopted.

It was agreed that the wording of the said part of Rule 5.1 of the PCT Regulations should be incorporated in the draft Rule.

Draft Rule 103(3) was considered as acceptable.

It was agreed that Rule 103(4) should be deleted on the understanding that headings for the separate parts of the description should neither be made obligatory nor be prohibited.

It was proposed that Rule 103 should contain an additional paragraph stating, along the lines of Rule 104(6), that, where any requirement prescribed in Article 103 or in Rule 103 was not complied with, the applicant should be given an opportunity to amend the application. In this respect doubts were expressed by one delegation whether such an addition could not be interpreted as allowing for additional disclosure or whether this was simply meant to deal with formal deficiencies of the disclosure. The International Bureau was asked to study this question.

The Delegation of Japan expressly reserved its position with reference to Rule 103, stressing the great importance it attached to the question of the advantageous effects of an invention to be disclosed in the description."

Manner of Claiming

Article 104 of the draft Treaty as submitted by the International Bureau to the Committee of Experts read as follows:

"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."

Rule 104 of the draft Regulations as submitted by the International Bureau to the Committee of Experts read as follows:

"(1) Any claim or claims drafted in accordance with the provisions of paragraphs (2) to (5) shall be accepted under any national law as satisfying the requirements in respect of the manner of claiming.

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

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

(b) Claims may contain:

(i) a statement indicating those technical features of the invention which are necessary for the definition of the claimed subject matter but which, in combination, 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.

(4)(a) 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.'

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

(c) Where 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 placed between parentheses.

(5)(a) 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.

(b) Any claim which includes all the features of one or more other claims of the same category 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.

(c) Dependent claims or multiple dependent claims may depend on independent claims, dependent claims or multiple dependent claims. Multiple dependent claims may refer in the alternative or in the cumulative to the claims on which they depend.

(d) Any dependent claim shall be construed as including all the features contained in the claim to which it refers, and any multiple dependent claim shall be construed as including all the features contained in each claim to which it refers and in relation to which it is considered.

(e) 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.

(6) *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 portion of the report of the Committee of Experts concerning the discussion of Article 104 and Rule 104 reads as follows:

"As regards the third sentence of Article 104, it was suggested that the Notes on Article 104 should be amended in order to clarify what the consequences would be if a claim was not supported by the description. In such a case, the applicant should have an opportunity to amend the description accordingly. It was agreed that a disclosure contained in an original claim was part of the disclosure of the application as were the drawings.

The Committee of Experts agreed to add, at the end of paragraph (c) of the Notes on Article 104, the following sentence: 'Matter in the original claim will be considered to be part of the original disclosure. The description may be amended to support any such matter in the original claims without raising a question of new matter.'

It was further suggested that the Notes on Article 104 should also clarify that claims as well as drawings were part of the original disclosure.

As regards Rule 104(1), it was generally agreed that either a second paragraph corresponding to Rule 103(1)(b) should be added, since the situation in respect of the manner of claiming was the same as the one in respect of the manner of description, or that, in both cases, the idea expressed in Rule 103(1)(b) should be omitted, it being understood that national Offices were free to provide for requirements which did not contain all the details provided for in the Rule.

With respect to Rule 104(3)(a), it was agreed to clarify that technical features may be explained in functional, structural or mathematical terms. The proposal to delete the expression 'technical' was considered but the majority view was in favor of retaining that expression.

With respect to Rule 104(3)(b), the amendment proposed by the Delegation of the United States of America, as contained in document HL/CE/IV/5,⁴ was considered as acceptable by the Committee of Experts. It was noted that the French text of the words 'containing a recitation of a combination' needed to be reviewed.

⁴ Rule 104(3)(b) should read as follows:

"A claim may:
either be written in two parts containing

(i) a statement indicating those technical features of the invention which are necessary for the definition of the claimed subject matter but which, in combination, 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;

or be written as a single part containing a recitation of a combination of several elements or steps, or a single element or step, which distinctly sets forth the subject matter regarded as being the invention;"

As regards Rule 104(3)(b)(i), it was agreed that the text should be reviewed as well as Note (e) relating thereto. In this context, it was suggested to insert, after the word 'indicating,' the words 'at least' and to replace, after the words 'in combination,' the word 'are' by the words 'appear to be.'

It was also suggested that in the Notes the meaning of the words 'prior art' should be clarified, because the definition of prior art was not the same in all countries.

Several delegations expressed concern about the fact that the explanation in Note (e), fourth sentence, starting with the word 'Normally,'⁵ might not provide sufficient clarification and would be without binding effect on courts in the case of later interpretation of a claim. It was, therefore, suggested that the contents of that sentence should be added to Rule 104(3)(b)(i).

As regards Rule 104(4)(b), it was agreed that graphs should, like drawings, not be included in a claim and the reference to graphs should be deleted from the text of this paragraph. However, the Notes should be amended to the effect that a claim may contain a reference to a graph as was permitted for drawings under paragraph (4)(a) in special cases.

With respect to Rule 104(4)(c), it was agreed that the words 'shall preferably' be replaced by the word 'may.'

With respect to Rule 104(5)(a), it was agreed not to define the term 'independent claim.' The definition of dependent claim would imply that all claims which were not dependent would be independent claims. Therefore, the first sentence of paragraph (5)(a) should be deleted.

As regards the second sentence of Rule 104(5)(a), it was agreed to make it clear in the Notes that an independent claim may refer to one or more other claims without becoming thereby a dependent claim. The mere reference in a claim to one or more other claims would not make such claims automatically dependent.

With respect to Rule 104(5)(b), it was agreed to add language corresponding to the second sentence of the deleted Rule 104(5)(a), the first sentence of which was to be deleted [...].

As regards Rule 104(5)(b), it was suggested to clarify in the Notes that national law and practice may admit dependent claims which did not expressly refer to the number of another claim.

Several delegations noted that their concepts of dependent and independent claims differed substantially from the definitions that were evolving and urged the International Bureau to further study the matter. One delegation also noted that it believed that one multiple dependent claim should not serve as a basis for another multiple dependent claim and that references to multiple claims should be in the alternative only.

It was agreed to delete Rule 104(5)(d), which was considered as superfluous.

With respect to Rule 104(6), it was agreed to delete its last part after the word 'application,' since this part was considered redundant."

⁵ That sentence reads as follows: "Normally, the relevant features indicated in the first part of an independent claim are part of the prior art but the mere fact that, when drafting a claim, a particular feature is mentioned in the first part, does not make it part of the prior art."

Unity of Invention

Article 105 of the draft Treaty as submitted by the International Bureau to the Committee of Experts read as follows:

"(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."

Rule 105 of the draft Regulations as submitted by the International Bureau to the Committee of Experts read 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) The order in which the claims appear in any of the combinations referred to in paragraph (1) may be different from the order used in that paragraph.

(3) The inclusion in the same application of independent claims of different categories in combinations other than the combinations referred to in paragraph (1), or the inclusion in the same application of claims of the same category, shall be allowed to the extent that the requirement of unity of invention is complied with."

The portion of the report of the Committee of Experts concerning the discussion of Article 105 and Rule 105 reads as follows:

"Although some comments were made as to the drafting and structure of these provisions, several delegations expressed their desire to postpone examining Rule 105 to some point in the future, when possible developments in a forthcoming study on unity of invention under preparation within the framework of trilateral cooperation between the European Patent Office, the Japanese Patent Office and the United States Patent and Trademark Office can be taken into consideration."

Grace Period

Article 201 of the draft Treaty as submitted by the International Bureau to the Committee of Experts read 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 for that patent was filed by the inventor 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 making available to the public by written or oral means, or by use or in any other way."

The portion of the report of the Committee of Experts concerning the discussion of Article 201 reads as follows:

"The Delegations of Canada, Germany (Federal Republic of), Switzerland, the United States of America, the United Kingdom, the Republic of Korea, the Soviet Union, Japan, Spain, Ireland, Bulgaria, Australia, Portugal and the Representatives of AIPLA, CASRIP, IPO, PTIC, CNIPA, FICPI, EPI, ABA, AIPPI, BDI and CIPA expressed themselves in favor of the principle of a general grace period as proposed in Article 201, although several expressed the need for a variety of balancing provisions.

The Delegations of Denmark, Sweden, the Netherlands, Norway, Belgium and France declared that they were opposed to a general grace period for the reasons given in the previous sessions of the Committee of Experts but that they would be prepared to reconsider their position in this respect if a 'package deal' would be concluded in adopting the Treaty, which would in particular include the introduction of the first-to-file principle. The Delegation of Denmark added that the proposal of the Nordic countries presented in document HL/CE/III/6 [see *Industrial Property*, 1987, p. 207] should be presented as an alternative to the draft proposed by the International Bureau.

The Delegation of Belgium indicated that it was essential that harmonization of which the grace period could form part should take place within the framework of WIPO and not another forum. This was supported by the Delegation of the Federal Republic of Germany.

As regards the length of the grace period, the Delegations of Canada, Germany (Federal Republic of), Switzerland and the United States of America, as well as the representatives of AIPLA, CASRIP, IPO, PTIC were in favor of 12 months. The Delegation of the Federal Republic of Germany added that, while being able to accept 12 months, they could also agree to six months if this would help to reach a consensus. The Delegation of the Soviet Union, in principle, did not object against establishing a 12-month grace period; however, it believed that a six-month grace period entailed a lesser risk for the inventor in terms of the possibility of third parties obtaining rights of prior use. The Representative of FICPI said that so far his Federation had been inclined in favor of six months but that now it could accept any length for which there was a consensus.

The Delegations of the Republic of Korea, Japan, Spain, Ireland and Bulgaria and the Representative of CIPA and CNIPA were in favor of a grace period of six months. The Delegation of the United Kingdom expressed preference for a grace period of six months but indicated that it could also accept a longer period provided that it was shorter than 12 months. Some of the delegations [...] which in principle were opposed to the general grace period indicated that, if they were going to accept it in a 'package deal,' then the grace period should be limited to six months.

As regards the point in time from which the grace period should be counted back, with the exception of the Delegation of Canada, all delegations and representatives of non-governmental organizations were in favor of counting the grace period from the priority date since only such a method of counting would ensure that the grace period was applicable in the normal situation where a first filing was followed by subsequent filing in other countries or a subsequent filing under the PCT.

It was suggested that the provision contained in Article 201(1)(iii) should be reexamined, in particular in respect of the question whether an application filed with the consent of the inventor should not benefit from the grace period. In this connection, attention was drawn to applications filed as a result of team research or applications for design patents which might disclose technical features and which, in view of the relatively rapid publication of design patents, could destroy novelty for the purpose of a subsequent patent application by the same applicant if the grace period would not apply to such applications.

Several delegations underlined that it was necessary to balance the grace period by provisions safeguarding rights of third parties which started using the invention before the filing date or the priority date even where such use was rendered possible by a disclosure which would benefit from the grace period. It was stressed that the only purpose of the grace period was to provide that a certain disclosure of the invention was not prejudicial to the novelty of the invention subject of an application filed by the inventor and that no patent rights accrued from the said disclosure. Other delegations declared that, if they were going to accept the grace period in a 'package deal,' the safeguarding of rights acquired by third parties who had started using the invention, or started preparations for the use of the invention, was a desirable condition.

It was agreed that the text of Article 201 should expressly state that an applicant who invoked the grace period would have the burden of proving his entitlement to the benefit of the grace period."

Prior Art Effect of Applications

Article 202 of the draft Treaty as submitted by the International Bureau to the Committee of Experts read as follows:

"(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, where priority is 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) *As regards international applications filed under the Patent Cooperation Treaty, any national law may prescribe that paragraph (1) shall apply only if the acts referred to in Article 22 or, where applicable, Article 39(1) of that Treaty have been performed.]*

(6) Paragraph (1) shall not apply when the applicant of the former application [or the inventor referred to in the former application] and the applicant of the application under examination [or the inventor referred to in the latter application] is one and the same person.]

The portion of the report of the Committee of Experts concerning the discussion of Article 202 reads as follows:

"Article 202(1) to (4), which sets down the basic principles of the prior art effect of previously filed but yet unpublished applications, was considered acceptable to all delegations and organizations.

In connection with Article 202(1), the question was raised whether it would not be appropriate to include in the draft Treaty a provision on the definition of novelty.

With respect to Article 202(5), dealing with international applications filed under the Patent Cooperation Treaty (PCT) and appearing in square brackets as now drafted, all delegations which expressed themselves with regard to this provision supported it and proposed the deletion of the square brackets. It was, in particular, pointed out that this provision would offer a choice to PCT applicants to either obtain or avoid the prior art effect.

As regards Article 202(6), intended to prevent the so-called 'self-collision' among several applications filed by the same applicant and also appearing in square brackets as now drafted, opinions were divided essentially among three groups. Several delegations (in particular, those of Japan and the United States of America) and all non-governmental organizations which expressed themselves supported the said provision and therefore the deletion of the square brackets. Several other delegations (in particular, those of Denmark, Germany (Federal Republic of) and the Netherlands) and the Representative of the European Patent Office expressed the view that the said provision was not needed in view of the possibility of providing for an internal right of priority and thus should be deleted. A third group of delegations (in particular, those of Australia, Norway and the United Kingdom) stated that they held a neutral view, although they had certain doubts in its regard; they in particular wondered whether the provision might not give rise to other problems, such as double patenting and effectively extending the duration of patent protection; they did, however, recognize that it might be possible to avoid most of those problems through other measures, in particular through express provisions against double patenting. It was, therefore, agreed that, while, in principle, the said provision, possibly in square brackets, should be mentioned, the International Bureau of WIPO should study the concerns raised and possible ways of complementing the provision, in particular, in order to clearly avoid double patenting.

Finally, it was agreed to clarify the second sentence of paragraph f. of the Notes on Article 202, so that it would read, for example, as follows: "... the whole contents for prior art purposes are those which are contained in the application (or patent) *as filed and as published*" (added words underlined).

Several Applications Filed by Different Applicants in Respect of the Same Invention

Article 301 of the draft Treaty as submitted by the International Bureau to the Committee of Experts read as follows:

"Where two or more persons have filed applications in respect of the same invention, the application which has the

earliest filing date, or, where priority is claimed, the earliest priority date, shall prevail."

The portion of the report of the Committee of Experts concerning the discussion of Article 301 reads as follows:

"No objection was raised against the principle contained in Article 301, and all government delegations and, with the exception of AIPLA and ABA, non-governmental organizations expressly or implicitly supported the principle.

The Representative of AIPLA expressed concern in respect of the possibility of modifying the present patent system in the United States of America by switching over from the first-to-invent principle to the first-to-file principle. The first-to-invent system had its roots in the constitution of the United States of America and had existed for more than 200 years. It would not be easy to adopt the first-to-file system since it might create uncertainty in respect of the protection of individual inventors in the United States of America.

The Representative of ABA drew attention to a Resolution recently adopted by ABA, according to which ABA was opposed to the first-to-file principle, but might accept it in a 'package deal.'

It was suggested that Article 301 should clarify that it only dealt with the case of inventions made independently by several inventors and thus did not cover the case where two applicants contest each other's right to file an application for the same invention of the same inventor.

It was pointed out that an earlier application should prevail only if it was later published. Otherwise, a withdrawal of an earlier application would permit the earlier applicant to block the subsequent application even though the earlier application would not be made known to the subsequent applicant. In this connection, reference was made to Article 60 of the European Patent Convention. Publication of the application should be understood as comprising the publication of the contents of the application through the publication of the patent.

The Delegation of Japan drew attention to a distinction made in the law of its country, according to which, in the case of a withdrawal of the application, the first-to-file principle did not apply whereas it continued to apply where the earlier applicant merely abandoned his application.

The question was raised whether the requirement of publication should apply also in respect of an application whose priority was invoked. It was observed that a publication of the priority application was not required and that it was sufficient if the second applicant was in a position to take cognizance of the contents of the earlier application which invoked the priority, for example, through the possibility of inspecting the file. According to another opinion, the condition of publication was not fulfilled if the contents of a priority application were only laid open for inspection in a foreign country.

It was pointed out that a problem may exist where the priority application did not fully disclose the invention which was the subject of the application to which the first-to-file principle eventually was to be applied. Moreover, it was suggested to examine whether the first-to-file principle should apply only to the extent that there was a valid priority claim.

It was agreed that the question should be examined whether Article 301 should not also apply to two applica-

tions filed by the same applicant in respect of the same invention. If Article 301 only applied to applications filed by different applicants, several applications filed by one and the same applicant would lead to a double or multiple protection of one and the same invention by several patents. In this connection, it should be taken into account that a prohibition of double patenting might most appropriately be achieved by a separate provision.

In connection with the possible requirement of publication of the application benefiting from the first-to-file principle, attention was drawn to international publication effected under the Patent Cooperation Treaty which could or could not be followed by an entry into the national phase through furnishing of the required translations and payment of the prescribed fees. It should be studied whether such a publication was sufficient for a designated state even if the national phase was not entered into.

In conclusion, it was agreed that the International Bureau should present for the next session of the Committee of Experts a revised draft of Article 301 and that it should in particular study the question whether that Article should be limited to applications concerning independently-made inventions and whether publication of the earlier application or the priority application should be required and, if so, how this requirement would apply in respect of international applications filed under the Patent Cooperation Treaty. Moreover, the consequences of a withdrawal of the earlier application or its abandonment should be studied."

Extent of Protection and Interpretation of Claims

Article 304 of the draft Treaty as submitted by the International Bureau to the Committee of Experts read as follows:

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

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

Rule 304 of the draft Regulations as submitted by the International Bureau to the Committee of Experts read as follows:

"(1) A claim shall confer protection against use of the invention involving all those elements of that claim interpreted in accordance with Article 304(2) which are sufficient and necessary for the realization of the invention (hereinafter referred to as 'essential elements').

"(2) A claim shall confer protection against use of the invention involving substitution of an equivalent for any essential element of that claim, provided that:

- (i) the other essential elements 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 of the patent excludes such use of the equivalent from the protection.

(3) A claim for a combination shall not provide independent protection for separate elements of the combination and a dependent claim shall not provide protection for the essential elements it contains independently of the essential elements of the claim on which it depends.

(4) A claim shall confer protection against use of the invention involving essential elements or equivalents, as referred to in paragraphs (1) and (2), together with an additional element, provided that the additional element does not result in a substantial change in the invention.

(5) Reference signs in a claim to drawings, if any, shall not be construed as limiting the extent of protection conferred under the claim.

(6) Any abstract [shall merely serve the purpose of technical information; it] shall not be taken into account for the purpose of interpreting the extent of protection conferred by the patent.

(7) Claims interpreted in accordance with paragraphs (1) to (4) shall serve as a basis for consideration equally in proceedings for infringement and for invalidation of the patent."

The portion of the report of the Committee of Experts concerning the discussion of Article 304 and Rule 304 reads as follows:

"In respect of Article 304(1), it was suggested that the words 'the terms of' be inserted after the words 'shall be determined by.' This was meant to bring the wording of the paragraph in line with Article 69(1) of the European Patent Convention.

Representatives of non-governmental organizations of the United States of America stated that the aspect of the enforcement of patents and their scope of protection was in fact very important for them. Experience with the court practice in certain countries had shown that courts were inclined to construe the terms of the claims very narrowly. Therefore, clear and binding provisions of the Treaty itself as a basis for judicial jurisprudence were decisive. Uniform minimum standards for the interpretation of claims were required allowing for a broad protection of inventions. Such a broad scope of protection was an essential part of a package in which the first-to-file approach and a period of grace for early disclosures were contained. Mere guidelines would not be sufficient to reach that objective.

It was responded that Rule 304 contained such minimum standards for a broad interpretation of patent claims and that the Rules of the Treaty would have the same force of law in the Contracting States as the Treaty itself.

Regarding Article 304(2), it was discussed whether the word 'shall' should be deleted in order to make the provision more flexible, taking into account a situation where the claim was absolutely clear and unambiguous. To meet this aspect, it was proposed to insert the words 'where necessary' after the word 'shall.' While some delegations thought this might be an improvement, the majority of the delegations expressed the view that an entirely clear wording of a claim was a hypothetical situation. Beyond

that, the court interpreting the text of the claim should, in any case, take account of the description and the drawings and read the claim in the light of these parts of the patent specification.

Attention was drawn to the Protocol on the Interpretation of Article 69 of the European Patent Convention. That Protocol tried to strike a fair balance between a mere literal construction of a claim and the other possible approach where the claims would serve only as a guideline and where the actual protection might extend to what, from a consideration of the description and the drawings, the owner of the patent had contemplated. Some participants proposed that a provision along the lines of the Protocol should be included in the Article while, on the other hand, doubts were raised whether such text would really be an improvement of the provision as proposed by the International Bureau.

Most speakers were of the opinion that the words 'as to content' in Article 304(2) should be deleted.

The question was raised whether the reference to the general knowledge of a person skilled in the art was necessary and whether it was appropriate to refer in this respect to the filing or priority date. For the purposes of claim interpretation in infringement proceedings it would be preferable to refer to the date when the infringement occurred. Possible future developments of technology between the filing date and the date when the infringement took place should not be excluded, in particular in view of equivalents. Several delegations supported a deletion of the last part of Article 304(2), starting with the words 'at the filing.' A suggestion was made that Article 304(2) be retained as drafted and an additional Article 304(3) added as follows: '[T]he description and drawings shall be used to interpret the claims as to scope.'

In respect of Rule 304, several delegations proposed the complete deletion of paragraph (1). The concept of 'essential elements' was unclear or unknown and did not fit into the context of the interpretation of claims. Its practical application would create considerable difficulties.

Some delegations supported the text of Rule 304(1) as proposed, the Delegation of Switzerland stating that the concept of 'essential elements' was well known in its case law based on national legislation.

The Representative of AIPPI recalled that his organization had carried out a study on the interpretation of claims some time ago. The conclusions drawn from that study had been that special protection should be given to the essential elements contained in a patent claim.

In respect of Rule 304(2), the doctrine of equivalents as such was supported by several delegations while pointing out that the wording should be amended taking into account a possible deletion of Rule 304(1) and any reference to 'essential elements.'

Difficulties were seen in regard to the words 'use of the invention' as this might be construed as excluding products and the manufacturing of products.

It was proposed that in Rule 304(2)(ii) the words 'functions, with respect to the invention as claimed, in substantially the same manner and' be deleted. The functions of an equivalent might be different. What was decisive was that substantially the same result was reached.

The Delegation of France reserved its position as regards Rule 304(2)(iii), as a reference to statements submitted by the applicant during the granting procedure might be a disincentive for applicants to make use of the

possibilities offered by the French national law to submit statements after the search report had been received.

The Delegation of the United Kingdom stated that it was not necessarily against a reasonable provision on equivalents. The courts had in one case used a 'purposive' construction of claims and had, for example, construed 'vertical' as not requiring precise verticality. Nevertheless, a careful qualification of the equivalents was required as there should be predictability for the owner of the patent and third parties of what might be accepted as equivalents by the courts.

In respect of Rule 304(3) attention was drawn to the notion of 'dependent claims,' which had been discussed in the context of Rule 104(5)(d). It was felt that clarification was also needed in the context of the Rule under discussion.

Some delegations and representatives proposed that the last part of Rule 304(4) should be deleted as the wording lacked precision. Although the possibility of granting cross-licenses for dependent patents was indicated, the provision generally was felt not to obtain sufficient interest and support by delegations.

Rule 304(5) and (6) were generally stated to be acceptable. It was agreed that the square brackets in paragraph (6) should be deleted and that the word 'interpreting' should be replaced by 'determining.'

A majority of delegations expressed themselves in favor of the principle underlying Rule 304(7) which meant that the patent owner should be estopped from interpreting the claims of his patent differently in separate infringement and invalidation proceedings. The International Bureau was invited to prepare a more appropriate wording in this respect.

Some delegations proposed a complete deletion of Rule 304 on the grounds that their national courts enjoyed a greater amount of freedom in respect of interpretation of claims and assessing infringement. Detailed rules on infringement or on the interpretation of claims were not acceptable under such circumstances.

It was concluded that, while Rule 304(5) and (6) met general acceptance, Rule 304(1) and (4) should be deleted, and the wording of Rule 304(2), (3) and (7) should be amended. The International Bureau was invited to present a new draft with two alternatives, one including the doctrine of 'essential elements' and the other one being without it in order to allow a better comparison of the two possible approaches."

Matters not yet Included in the Draft Treaty and the Draft Regulations

The portion of the report of the Committee of Experts concerning the discussion of these matters reads as follows:

"It was noted that the draft Treaty, in addition to Articles 102 and 303, in respect of which proposals would be included in the next draft, and the administrative and final provisions, reserved articles for other questions, namely, Article 203 for provisions on exclusions from patenting, Article 302 for provisions on rights conferred by a patent and Article 305 for provisions on duration of patents. With regard to those other questions, information

documents (HL/CE/IV/INF/1, 2 and 3) had been prepared, which were considered by the Committee of Experts.

It was noted that any corrections in those information documents should be submitted to the International Bureau in writing.

Exclusions from Patent Protection (Document HL/CE/IV/INF/1)

The Delegations of the United States of America, Switzerland and Japan underlined that the Treaty, in order to present a balanced package, should include a provision limiting the possibilities of excluding categories of inventions from patent protection.

The Delegation of the Federal Republic of Germany, although not opposed to an inclusion of this matter in the Treaty, drew attention to the need of concluding the Treaty in the near future and added that the inclusion of difficult questions such as the question of exclusions from patent protection could delay the conclusion of the Treaty.

The Delegations of Portugal, the United Kingdom and Sweden pointed out that the question to be examined was limited to the question of technical inventions excluded from patent protection. Thus, for example, to the extent that a computer program, *per se*, could not be considered as an invention, a problem of exclusion from patent protection did not arise. The same would apply with respect to plant varieties if they could not be considered as inventions. With respect to exclusions, the Delegation of the United Kingdom declared that it was in particular opposed to the exclusion of pharmaceutical products from patent protection.

The Representatives of ICC, FICPI and UNICE underlined that the concept of invention as it had been established in the nineteenth century required adaptation in order to cover to the largest extent possible inventions in fields of emerging technologies. When examining the question of exclusion from patent protection, account should be taken of a thus enlarged concept of invention.

The Delegations of France and the Netherlands expressed hesitations whether the question of exclusions from patent protection was suitable for a provision in the Treaty, in view of the existing provisions on exclusion.

It was agreed that the International Bureau should prepare a provision on exclusions from patent protection for the next draft of the Treaty, even if such a provision could not simply contain a prohibition of any exclusion from patent protection but would probably have to permit some exceptions, possibly in the form of reservations to be made; the effect of such reservations could be limited in time; moreover, the draft provision could present alternatives.

Duration of Patents; Maintenance Fees; Provisional Protection of Applicant; Prior Users' Rights (Document HL/CE/IV/INF/2)

Duration of Patents. With respect to the question of duration of patents, the Delegations of the Federal Republic of Germany, France, Japan, the Netherlands, Portugal, Switzerland and the United States of America recommended that the International Bureau should prepare a draft provision to be included in the Treaty.

The Delegations of Switzerland and the Netherlands pointed out that an important aspect of the duration

question was the starting date of the duration of patents and that harmonization should be sought with respect to that date.

The Delegation of the United States of America indicated that it was important to have substantially the same duration of protection for patents in various countries and that such duration could be, for example, at least 20 years from the date of filing the application.

Attention was drawn to the fact that, even if the maximum duration was the same in all countries, the actual duration of patents granted in several countries for the same invention would not be the same because of differences with respect to actual filing dates.

The Delegations of the Netherlands, Portugal and France drew attention to the interest of studying a possible extension of the duration in respect of high technology inventions or inventions whose exploitation required government authorization, in particular, pharmaceuticals.

It was agreed that the International Bureau should prepare a provision on a minimum duration of patents for the next draft of the Treaty, possibly with a provision on possibilities of extension and on reservations, and possibly with alternatives.

Maintenance Fees. In respect of this question, the Director General indicated that at present many different solutions existed and that this question was of great practical importance to the users of the patent system.

The Delegation of Switzerland indicated that it would welcome a proposal of the International Bureau on this matter.

The Delegation of the Federal Republic of Germany, although it considered it to be important to come to a solution on this question, expressed the view that the search for such a solution should not delay the conclusion of the Treaty.

The Delegation of the United States of America underlined that the question of maintenance fees was of great interest to the users of the patent system and that therefore the opinion of those users should be taken into account.

Representatives of several non-governmental organizations emphasized the need to harmonize the various systems of maintenance fees and welcomed a proposal to be made by the International Bureau.

It was agreed that an attempt should be made by the International Bureau to prepare a provision on maintenance fees for the next draft of the Treaty.

Provisional Protection of Applicant. The Representatives of FICPI, CNIPA, IPTA, UNICE and AIPPI considered this question to be important for patent applicants and indicated that a harmonization proposal in this regard would be welcomed.

The Delegations of France, Switzerland, the United Kingdom and the United States of America declared that such a proposal would be useful.

The Delegation of the Federal Republic of Germany expressed hesitation on the ground that an attempt to harmonize this question would be difficult and could delay the conclusion of the Treaty.

It was agreed that the International Bureau should try to prepare a proposal on provisional protection of the applicant for the next draft of the Treaty.

Prior Users' Rights. The Delegations of France, Switzerland and the United States of America indicated that this question should be studied and that the International Bureau should make a proposal in this regard.

It was agreed that the International Bureau would prepare such a proposal for the next draft of the Treaty, taking into account the opinion expressed above.

Restoration of the Right to Claim Priority (Document HL/CE/IV/INF/3)

The Delegations of Belgium and Spain expressed the view that one should be cautious with respect to the inclusion of a provision on restoring the right to claim priority in the draft Treaty, in particular because such a provision could upset established principles.

The Delegations of the United States of America and Australia and the Representatives of FICPI, CASRIP, IPTA and AIPPI were in favor of including a provision on restoration. In this connection, some of the representatives suggested that restoration should be permitted without a requirement of proof, but possibly subject to a relatively high fee, and, in any case, limited by a reasonable time limit. IPTA recommended that this provision be reconciled with the proposal of the Delegation of Norway to permit filing by reference (see Article 101(1)(iii) and document HL/CE/IV/3).

It was agreed that the International Bureau should prepare for the next draft of the Treaty a provision on restoration of the right to claim priority.

General

It was agreed that, with the inclusion of a provision on restoration of the right to claim priority, the list of subject matters to be covered by the draft Treaty should be closed.

In reply to the question whether the provisions of the Treaty would apply, in Contracting States, to nationals of other States, it was indicated that such an equal treatment was required because of Article 2 of the Paris Convention."

Closing Declarations

Closing declarations were made by the Delegations of Mexico (on behalf of the Latin American Group), Argentina, Brazil and Uruguay. They expressed their conviction as to the essential importance of the harmonization process but also their concern that some of the solutions to which such a process might lead would not be applicable to their countries which found themselves at a markedly different level of development than the developed countries engaged in the harmonization discussions. The Representative of ASPIP also made a closing declaration, stating, among others, that his organization represented non-governmental professionals in the field of industrial property from 19 Arab countries and was committed to the objectives of harmonization.

LIST OF PARTICIPANTS**

I. Member States

Argentina: N. Fasano. **Australia:** G. Baker. **Austria:** E. Kubesch. **Belgium:** D. Vanderghenst. **Brazil:** P.R. de Almeida. **Bulgaria:** M. Tosheva. **Canada:** J.H.A. Gariépy; J. Gero. **Denmark:** L. Østerborg; H. Jespersen. **Egypt:** W.Z. Kamil. **Finland:** J. Rainesalo. **France:** J. Divoy; J.-B. Mozziconacci. **Germany (Federal Republic of):** I. Koch; W. Niedlich; H. Bardehle. **Hungary:** I. Iványi; M. Suemeghy. **Ireland:** B. O'Farrell. **Italy:** M.G. Fortini. **Japan:** K. Kuzuwa; T. Ogawa; A. Ohno; Y. Masuda. **Madagascar:** E. Jaona. **Mexico:** J. de Villafranca; A. Fuchs Ojeda. **Netherlands:** W. Neervoort. **Norway:** J. Smith; P.T. Lossius. **Portugal:** J. Mota Maia; J. Cruz. **Republic of Korea:** H.-S. Park; S.-H. Maeng; T.-C. Choi. **Soviet Union:** G. Gourianov; A. Kortchaguine. **Spain:** A.-C. Ortega Lechuga. **Sweden:** R. Halvorsen; B. Sandberg. **Switzerland:** J.-L. Comte; E. Causignac; P. Messerli; F.A. Jenny. **Turkey:** A. Algan. **United Kingdom:** A. Sugden; J. Sharrock. **United States of America:** D.J. Quigg; M.K. Kirk; L.J. Schroeder; L.I. Maassel. **Uruguay:** R. González-Arenas.

II. Observer States

Honduras: N. Valenzuela. **Lesotho:** N.M. Pii. **Pakistan:** M.A. Khan. **Panama:** M. Saavedra Polo. **Qatar:** A. Barre. **Venezuela:** H.C. Azocar; L.D. Ruiz.

III. Intergovernmental Organizations

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):** J.A. Degrandi; W.S. Thompson; R.A. Walsh. **Arab Society for the Protection of Industrial Property (ASPIP):** T. Abu-Ghazaleh. **Asian Patent Attorneys Association (APAA):** N. Ogawa. **Bundesverband der Deutschen Industrie e.V. (BID):** H. Goldrian; K.-J. Heimbach. **Center for Advanced Study and Research on Intellectual Property (CASRIP):** D.S. Chisum; H.C. Wegner. **Centre for International Industrial Property Studies (CEIPI):** P. Nuss. **Committee of National Institutes of Patent Agents (CNIPA):** R.C. Petersen. **Deutsche Vereinigung für Gewerblichen Rechtsschutz und Urheberrecht e.V. (DVGR):** H. Goldrian. **European Council of Chemical Manufacturers' Federations (CEFIC):** G. Tasset. **European Federation of Agents of Industry in Industrial Property (FEMIPI):** E. Thouret-Lemaître; J. Brullé; G. Tasset. **European Federation of Pharmaceutical Industries' Associations (EFPIA):** G. Tasset. **Institute of Professional Representatives before the European Patent Office (EPI):** R.C. Petersen; J.-F. Léger. **Intellectual Property Owners, Inc. (IPO):** C. Alexander. **International Association for the Advancement of Teaching and Research in Intellectual Property (ATRIP):** J. Pagenberg. **International Association for the Protection of Industrial Property (AIPPI):** G. Gaultier; M. Santarelli. **International Chamber of Commerce (ICC):** K.-J. Heimbach; J.M.W. Buraas. **International Federation of Industrial Property Attorneys (FICPI):** K. Raffinsoe; J. Beier; G. Schmitt-Nilson. **International Federation of Pharmaceutical Manufacturers Associations (IFPMA):** G. Lönnqvist. **International League for Competition Law (LIDC):** J.-F. Léger. **International Patent and Trademark Association (IPTA):** W.S. Thompson.

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

Licensing Executives Society (International) (LES); C.G. Wickham. Max Planck Institute for Foreign and International Patent, Copyright and Competition Law (MPI); J. Pagenberg. Pacific Industrial Property Association (PIPA); W.R. Norris. Patent and Trade Mark Institute of Canada (PTIC); R.E. Mitchell. Patentanwaltskammer (PAK); J. Beier; G. Schmitt-Nilson. The Chartered Institute of Patent Agents; R.C. Petersen. The New York Patent Trademark and Copyright Law Association, Inc. (NYPTC); K.F. Jordá. Union of European Practitioners in Industrial Property (UEPIP); R. Goetz. Union of Industries of the European Community (UNICE); H. Goldrian; J. Brullé; K.-J. Heimbach.

V. Officers

Chairman: J.L. Comte (Switzerland). *Vice-Chairmen:* G. Gourianov (Soviet Union); J. de Villafranca (Mexico). *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*); B. Ibos (*Legal Officer, Industrial Property (Special Projects) Division*); Y. Takagi (*Associate Officer, Industrial Property Law Section*); M. Weil-Guthmann (*Consultant, Industrial Property Division*).

2. First, the present memorandum is intended to give a general picture of *what fields of technology are excluded from patent protection* under the patent laws of the 97 countries party to the Paris Convention for the Protection of Industrial Property (hereinafter referred to as "the Paris Convention"), under the patent laws of nine other countries (Bolivia, Colombia, Ecuador, India, Malaysia, Pakistan, Peru, Thailand, Venezuela) and under three regional patent conventions, namely, the Protocol of the African Regional Industrial Property Organization (ARIPO), the European Patent Convention (EPC) and the Agreement Relating to the Creation of an Intellectual Property Organization (Bangui Act) within the framework of the African Intellectual Property Organization (OAPI).

3. Second, the present memorandum is intended to give a general picture of the *quantitative importance of the technological fields excluded from patent protection*. It does that by indicating, for those countries and regional systems where the fields of technology are *not* excluded from patent protection, the volume of patents granted in each of those fields. The volume is indicated by the percentage that patents granted in each of the 19 fields of technology represent in the total number of patents granted (i.e., granted in *all* fields of technology).

4. It is recognized, naturally, that this method cannot and does not give any indication of the quantitative importance of exclusions in the countries in which the exclusions exist. But the method does, it is believed, give an indication—albeit a somewhat vague one—of the possible quantitative importance of the excluded fields in general.

II. Technological Fields Excluded from Patent Protection

II. EXCLUSIONS FROM PATENT PROTECTION

(HL/CE/IV/INF/1)

Memorandum of the International Bureau of WIPO

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I. Introduction

1. The present memorandum, which is a revised version of document HL/CE/III/INF/1, is intended to give two general pictures in respect of technological fields that, in some countries, are excluded from patent protection (hereinafter sometimes referred to as "excluded fields").

5. The legislative provisions of the 97 countries party to the Paris Convention and of the other above-mentioned nine countries and the treaty provisions of the three regional systems are analyzed in Annex I. The technological fields—altogether 19—excluded from patent protection are mentioned under the name of each country and each treaty.

6. Court decisions were not examined, but information received from industrial property offices concerning exclusions from patent protection and—where applicable—alternative forms of protection were taken into account.

7. It results from the said analysis that the technological fields excluded and the countries, or regional treaties, that exclude them are (indicated in the descending order of the number of countries or regional treaties that exclude them) the following:

(i) *Pharmaceutical Products* (49): Argentina, Australia (where the Commissioner can refuse to grant a patent therefor where the product is a mere mixture of known ingredients), Bolivia, Brazil, Bulgaria, Canada (unless produced by processes also claimed or their equivalents), Chad, China (if obtained by chemical processes), Colombia, Cuba, Czechoslovakia, Ecuador, Egypt (as regards chemical inventions), Finland, German Democratic Republic, Ghana, Greece, Hungary, Iceland, India, Iran (Islamic Republic of), Iraq, Lebanon, Libya (as regards chemical inventions), Malawi,

Mexico, Monaco, Mongolia, Morocco, New Zealand (where the Commissioner *can* refuse a patent therefor where the product is a mere mixture of known ingredients), Norway, Pakistan, Peru, Poland, Portugal, Republic of Korea, Romania, Soviet Union, Spain (until 1992), Syria, Thailand, Tunisia, Turkey, Uruguay, Venezuela, Viet Nam, Yugoslavia, Zambia (where the Registrar *can* refuse a patent therefor where the product is a mere mixture of known ingredients), Zimbabwe (where the Registrar *can* refuse a patent therefor where the product is a mere mixture of known ingredients);

(ii) *Animal Varieties* (45): Algeria, Austria, Bahamas, Barbados, Belgium, Brazil, Bulgaria, Canada, China, Colombia, Cuba, Cyprus, Denmark, Ecuador, EPC, Finland, France, German Democratic Republic, Germany (Federal Republic of), Ghana, Israel, Italy,* Kenya, Luxembourg, Malaysia, Mexico, Netherlands, Nigeria, Norway, OAPI,** Peru, Poland, Portugal, Romania, South Africa, Soviet Union, Spain, Sri Lanka, Sweden, Switzerland,*** Thailand, Uganda, United Kingdom, United Republic of Tanzania, Yugoslavia;

(iii) *Methods for Treatment of Human or Animal Body* (44): Austria, Barbados, Belgium, Brazil, Bulgaria, Canada, China, Colombia, Cuba, Cyprus, Denmark, Ecuador, EPC, Finland, France, German Democratic Republic (except for apparatuses), Germany (Federal Republic of), Ghana, Hungary, India, Israel, Italy,* Japan, Kenya, Malaysia, Mexico, Mongolia, Netherlands, Norway, OAPI,** Peru, Poland, Romania, South Africa, Soviet Union, Spain, Sri Lanka, Sweden, Switzerland,*** Uganda, United Kingdom, United Republic of Tanzania, Viet Nam, Yugoslavia;

(iv) *Plant Varieties* (44): Algeria, Austria, Bahamas, Barbados, Belgium, Brazil, Bulgaria, Canada, China (except for relevant processes), Colombia, Cuba, Cyprus, Denmark, Ecuador, EPC, Finland, France, German Democratic Republic, Germany (Federal Republic of), Ghana, Israel, Kenya, Luxembourg, Malaysia, Mexico, Netherlands, Nigeria, Norway, OAPI,** Peru, Poland, Portugal, Romania, South Africa, Soviet Union, Spain, Sri Lanka, Sweden, Switzerland,*** Thailand, Uganda, United Kingdom, United Republic of Tanzania, Yugoslavia;

(v) *Biological Processes for Producing Animal or Plant Varieties* (42): Algeria, Austria, Bahamas, Barbados, Belgium, Brazil, Canada, Colombia, Cuba, Cyprus, Denmark, Ecuador, EPC, Finland, France, German Democratic Republic, Germany (Federal Republic of), Ghana, Israel, Italy,* Kenya, Luxembourg, Malaysia, Mexico, Mongolia, Netherlands, Nigeria, Norway, OAPI,** Peru, Poland, Portugal, South Africa, Spain, Sri Lanka, Sweden, Switzerland,*** Thailand, Uganda, United Kingdom, United Republic of Tanzania, Yugoslavia;

(vi) *Food Products* (35): Australia (where the Commissioner *can* refuse a patent therefor where the product is a mere mixture of known ingredients), Bolivia, Brazil, Bulgaria, Canada (unless produced by processes also claimed

or their equivalents), China, Czechoslovakia, Colombia, Cuba, Denmark, Ecuador, Egypt (as regards chemical inventions), Finland, German Democratic Republic, Hungary, Iceland, India, Libya (as regards chemical inventions), Malawi, Mexico, Mongolia, New Zealand (where the Commissioner *can* refuse a patent therefor), Norway, Peru, Poland, Portugal, Republic of Korea, Romania, Thailand, Tunisia, Venezuela, Viet Nam, Yugoslavia, Zambia (where the Registrar *can* refuse a patent therefor where the product is a mere mixture of known ingredients), Zimbabwe (where the Registrar *can* refuse a patent therefor where the product is a mere mixture of known ingredients);

(vii) *Computer Programs* (32): Australia, Austria, Belgium, Brazil, Canada, Cyprus, Denmark, EPC, Finland, France, German Democratic Republic, Germany (Federal Republic of), Ghana, Hungary, Israel, Italy,* Japan, Kenya, Mexico, Norway, OAPI,** Poland, Portugal, South Africa, Spain, Sweden, Switzerland, Thailand, Uganda, United Kingdom, United Republic of Tanzania, Yugoslavia;

(viii) *Chemical Products* (22): Bolivia, Brazil, Bulgaria, China, Cuba, Czechoslovakia, German Democratic Republic, Hungary, India, Mexico, Mongolia, Morocco (but only in the former zone of Tangier), Poland, Portugal, Republic of Korea, Romania, Soviet Union, Spain (until 1992), Uruguay, Venezuela, Viet Nam, Yugoslavia;

(ix) *Nuclear Inventions* (14): Brazil, Bulgaria, China, Cuba, Czechoslovakia, German Democratic Republic, India, Japan, Mexico, Poland, Republic of Korea, Romania, United States of America, Yugoslavia;

(x) *Pharmaceutical Processes* (10): Australia (where the Commissioner *can* refuse a patent therefor where the process produces a mere mixture of known ingredients by mere admixture), Brazil, Colombia (unless exploited in Colombia), Malawi, Mexico, New Zealand (where the Commissioner *can* refuse a patent therefor where the process produces a mere mixture of known ingredients by mere admixture), Republic of Korea, Turkey, Zambia (where the Registrar *can* refuse a patent therefor where the process produces a mere mixture of known ingredients by mere admixture), Zimbabwe (where the Registrar *can* refuse a patent therefor where the process produces a mere mixture of known ingredients by mere admixture);

(xi) *Food Processes* (9): Australia (where the Commissioner *can* refuse a patent therefor where the process produces a mere mixture of known ingredients by mere admixture), Brazil, Colombia (unless exploited in Colombia), Denmark, Malawi, Mexico, New Zealand (where the Commissioner *can* refuse a patent therefor where the process produces a mere mixture of known ingredients by mere admixture), Zambia (where the Registrar *can* refuse a patent therefor where the process produces a mere mixture of known ingredients by mere admixture), Zimbabwe (where the Registrar *can* refuse a patent therefor where the process produces a mere mixture of known ingredients by mere admixture);

(xii) *Microorganisms* (9): Brazil, Cuba, Czechoslovakia (if used in industrial manufacture), German Democratic Republic, Hungary, Malaysia (except for man-made living microorganisms), Spain, Romania, Yugoslavia;

(xiii) *Substances Obtained by Microbiological Processes* (7): Czechoslovakia, Brazil, German Democratic Republic, Malaysia, Romania, Spain (until 1992), Yugoslavia;

(xiv) *Cosmetics* (2): Bulgaria, Republic of Korea;

(xv) *Fertilizers* (2): Mexico, Yugoslavia;

(xvi) *Mixture of Metals and Alloys* (2): Mexico, Yugoslavia;

* In this memorandum, the information on Italy also applies to the Holy See and San Marino (see Annex I, paragraphs 94 and 106).

** Benin, Burkina Faso, Cameroon, Central African Republic, Congo, Côte d'Ivoire, Gabon, Mali, Mauritania, Niger, Senegal, Togo. Chad is a member of OAPI but is party to the Libreville Agreement which, in Article 3 of its Annex I, only excludes pharmaceutical compositions and remedies from patent protection.

*** In this memorandum, the information on Switzerland also applies to Liechtenstein (see Annex I, paragraph 99).

- (xvii) *Agricultural Machines* (1): Thailand;
- (xviii) *Anticontaminants* (1): Yugoslavia;
- (xix) *Methods of Agriculture or Horticulture* (1): India.

III. Quantitative Importance of the Technological Fields Excluded from Patent Protection

8. The 19 technological fields excluded from patent protection in certain countries are tabulated in Annex III. For each field and for each of the 97 countries party to the Paris Convention and the nine other countries (Bolivia, Colombia, Ecuador, India, Malaysia, Pakistan, Peru, Thailand, Venezuela), and for each of the three regional systems, the tables indicate (on the basis of the statistics furnished by them to WIPO) the volume of patents granted, if any, in those fields. Naturally, the volume does not necessarily correspond to the economic value of the inventions covered or the magnitude of the investment necessary for creating and developing them.

9. The following table shows (using the INPADOC data base that covers some 95% of the world total), for each field, (A) the number of patents and inventors' certificates granted in 1985 and (B) the percentage that that number represents in the total number of patents and inventors' certificates taken into account (440,545).

| | (A) | (B) |
|--|--------------------|--------|
| Chemical Products | 59,321 | 13.47% |
| Anticontaminants | 33,833 | 7.68% |
| Pharmaceutical Processes | 31,939 | 7.25% |
| Food Processes | 6,790 | 1.54% |
| Pharmaceutical Products | 6,349 | 1.44% |
| Food Products | 3,977 | 0.90% |
| Nuclear Inventions | 2,016 | 0.46% |
| Alloys | 1,942 | 0.44% |
| Microorganisms | 1,601 | 0.36% |
| Cosmetics | 1,111 | 0.25% |
| Substances Obtained by Microbiological Processes | 1,079 | 0.24% |
| Fertilizers | 601 | 0.14% |
| Plant Varieties | 162 | 0.04% |
| Biological Processes for Producing Animal or Plant Varieties | 121 | 0.03% |
| Animal Varieties | 48 | 0.01% |
| Computer Programs | Data not available | |
| Methods of Treatment of Human/Animal Body | Data not available | |
| Methods of Agriculture or Horticulture | Data not available | |
| Agricultural Machines | Data not available | |

ANNEX I

Laws and Regional Treaties

1. This Annex lists the countries party to the Paris Convention, nine other countries (Bolivia, Colombia, Ecuador, India, Malaysia, Pakistan, Peru, Thailand, Venezuela) and three regional patent conventions, namely the Protocol of the African Regional Industrial Property Organization (ARIPO), the European Patent Convention (EPC) and the Agreement Relating to the Creation of an Intellectual Property Organization (Bangui Act) within the framework of the African Intellectual Property Organization (OAPI) in descending order of the number of the patents and (when

applicable) inventors' certificates granted in 1985 and, for each of them, briefly indicates and summarizes the provisions in the national laws or regional treaties that exclude patent protection for certain technological fields.

2. The provisions are those believed to be in force in March 1987.

3. The fact that the statistics relate to 1985 (and, in cases where only 1984 statistics were available, to 1984, that is, for Argentina, Burundi, Ecuador and Zaire) explains why for China (where the grant of patents just started in 1985) and in Italy (where, in 1985, an extraordinarily large number of backlog applications were disposed of) the numbers are not characteristic.

4. *Soviet Union (74,590).¹* Pursuant to Sections 22 and 25 of the Statute on Discoveries, Inventions and Rationalization Proposals of 1973, as amended in 1978, patents are not granted for: (i) varieties and hybrids of agricultural crops and other cultivated plants, new breeds of farm animals and poultry—their highly productive stock, crossbreeds and descending lines—new breeds of fur bearing animals and new species of mulberry silk worms; (ii) substances obtained through chemical processes; and (iii) pharmaceutical substances, methods of prophylaxis, diagnosis or treatment of human or animal diseases, approved under the law enforced. Inventors' certificates can be granted for such inventions.

5. *United States of America (71,661).*

(a) According to Section 2181 of Title 42 of the United States Code, any invention which is useful solely in the utilization of special nuclear material or atomic energy in an atomic weapon is not patentable.

(b) Plant varieties are patentable under the general (utility) patent law, no matter what their nature or manner of reproduction. Asexually reproduced plant varieties (with three minor exceptions) are alternatively protectable under the plant patent law. This law (Sections 161 to 164 of Title 35, United States Code) forms a chapter of the general patent law. The plant patent law imposes slightly different conditions for receiving and enforcing patent rights than those of the general patent law.

(c) Non-hybridized sexually reproduced plant varieties, in addition to being patentable under the general patent law, are protectable under the Plant Variety Protection Act (Sections 232I *et seq.* of Title 7, United States Code). The Act is administered by the Department of Agriculture, not by the Patent and Trademark Office. First generation hybrids are not protectable under this law, although they are patentable under the general patent law.

(d) It has not yet been settled under United States law whether protection for a particular plant variety may be obtained both under the Plant Variety Protection Act and the general patent law, or under both the plant patent law and the general patent law. The general patent law may also be utilized for the protection of plants (not necessarily varieties), plant parts, plant products, plant propagative material and processes for breeding or using plants.

6. *Japan (50,100).* Under Section 32 of the Patent Law of 1959, as last amended in 1987, inventions of substances man-

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

factured by the transformation of the atom are not patentable. Computer programs are excluded from patent protection because they are not inventions according to Section 2 of the Patent Law, namely, creations of technical ideas by which a law of nature is utilized. Methods for the treatment of the human body are also excluded from patent protection because they are considered as not being industrially applicable.

7. *Italy (37,494).*² Pursuant to Sections 12 and 13 of the Law on Patents for Inventions of 1939, as last amended in 1987, patents are not granted for: (i) computer programs; (ii) methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practiced on the human or animal body, except products, in particular substances or compositions, for use in any of these methods; and (iii) animal varieties and essentially biological processes for their production, except microbiological processes and the products thereof.

8. *France (24,195).*³ According to Sections 6 and 7 of the Patent Law of 1968, as last amended and supplemented in 1984, the following subject matter are excluded from patenting: (i) programs for computers; (ii) methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practiced on the human or animal body (except for products, in particular substances or compositions, for use in any of these methods); (iii) varieties belonging to a genus or species enjoying the protection established by Law No. 70-489 of 1970, on the Protection of New Plant Varieties; and (iv) animal varieties or essentially biological processes for the production of plants or animals (except for microbiological processes or products thereof).

9. *United Kingdom (20,880).*⁴

(a) Pursuant to Sections 1 and 4 of the Patents Act 1977, patents shall not be granted for: (i) computer programs; (ii) any variety of animals or plants or any essentially biological processes for the production of animals or plants (with the exception of microbiological processes or the products of such a process); and (iii) a method of treatment of the human or animal body by surgery or therapy or diagnosis practiced on the human or animal body (with the exception of a product consisting of a substance or composition for use in any such method).

(b) As regards computer programs, the exclusion operates only to the extent that a patent or application for a patent relates to a computer program as such. Where an invention is in any way concerned with a computer program, the claims are analyzed, in the light of what is described and of the prior art, in order to identify the contribution to the art and hence determine whether this advance resides in, or necessarily includes, technological features, or is solely intellectual in its content and thus excluded. Copyright protection is available for computer programs.

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.

(c) The exclusion of animal and plant varieties is applied only to varieties which are characterized by purely biological features.

(d) No alternative form of protection is available for

(i) varieties of animals, or processes for the production of animals or plants (other than microbiological processes and their products);

(ii) methods of treatment of the human or animal body or of diagnosis practiced on the human or animal body. Protection for certain plant varieties is available under the Plant Varieties and Seeds Act 1964.

(e) As regards the treatment of the human or animal body, any operation on the body which requires the skill and knowledge of a surgeon is regarded as surgery, whether it is curative, prophylactic or cosmetic. The term includes not only the cutting of the body but also manipulating such as the setting of broken bones or relocating dislocated joints, and dental surgery. Therapy has the same meaning in relation to both humans and animals and includes the prevention as well as the treatment or cure of disease.

10. *Germany (Federal Republic of) (19,500).*⁵ According to Sections 1, 2 and 5 of the Patent Law of 1981 as amended in 1986, patents are not granted for: (i) programs for computers as such; (ii) plant or animal varieties or essentially biological processes for the production of plants or animals (with the exception of microbiological processes or the products thereof and inventions of plant varieties which, in respect of their species, are not included in the list of varieties annexed to the Plant Varieties Protection Law, or of processes which are not substantially biological for the production of plant or animal varieties); and (iii) methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practiced on the human or animal body (with the exception of products, in particular substances or compositions, for use in any of these methods).

11. *Canada (18,697).*

(a) According to Section 41(1) of the Patent Act of 1952, as last amended in 1972, in the case of inventions relating to substances prepared or produced by chemical processes and intended for food or medicine, the specification must not include claims for the substance itself, except when prepared or produced by the methods or processes of manufacture, particularly described and claimed or by their obvious chemical equivalents.

(b) With respect to animal varieties, plant varieties and biological processes for producing animal or plant varieties, no legislative exclusions exist. However, those subject matter, in the view of the Patent Office, are not considered to be an "invention" as defined in Section 2 of the Patent Act ("any new and useful art, process, machine, manufacture or composition of matter or any new and useful improvement in any art, process, machine, manufacture or composition of matter"). In its decision of March 11, 1987, the Federal Court of Appeal confirmed the Patent Office's refusal of a patent for a plant variety (*Pioneer Hi-Bred Limited v. Commissioner of Patents*). Alternative forms of protection are not available.

(c) Methods for the treatment of the human or animal body have been refused patent protection under Sections 2 and 41(1) of the Patent Act.

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.

(d) As regards computer programs, patents are refused because they are not considered to be inventions according to Section 2 of the Patent Act or because, under Section 28(3), no patent shall issue for any mere scientific principle or abstract theorem. However, computer programs have been protected by the Courts under copyright law.

12. European Patent Convention (EPC) (15,117).

(a) Pursuant to Articles 52 and 53 of the EPC, European patents are not granted for: (i) programs for computers; (ii) methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practiced on the human or animal body (with the exception of products, in particular substances or compositions, for use in any of these methods); and (iii) plant or animal varieties or essentially biological processes for the production of plants or animals (with the exception of microbiological processes or the products thereof).

(b) Whereas, under Article 52(c) of the EPC, a computer program claimed by itself or as a record on a carrier is not patentable irrespective of its content, in the opinion of the European Patent Office (EPO), patentability may not be denied merely on the ground that a computer program is involved in the implementation of a subject matter that makes a technical contribution to the known art. This means, for example, that program-controlled machines and program-controlled manufacturing and control processes should normally be regarded as patentable subject matter (see EPC Guidelines C-IV, 2.3). A claim directed to a technical process which is carried out under the control of a program (be this implemented in hardware or in software) is not regarded as relating to a computer program as such within the meaning of Article 52(3) of the EPC as it is the application of the program for determining the sequence of steps in the process for which in effect protection is sought. Consequently, such a claim is allowable under Article 52(2)(c) and (3) EPC (see Decision of the EPO Technical Board of Appeal T 208/84 of July 1, 1986, *Official Journal of the EPO* (OJ) 1987, 14, (20)). In accordance with the explanations provided by the EPO, the same is the case for a claim directed to a computer set up to operate in accordance with a specified program for controlling or carrying out a technical process. Besides, if the computer itself is of a known type and set up to operate according to a new program, the EPO does not consider it as forming part of the state of the art as defined by Article 54(2) of the EPC. If the claimed subject matter is concerned only with the program-controlled internal working of such a known computer, the subject matter can still be patentable if it provides a technical effect.

(c) As regards the exclusion of plant varieties from patent protection, a Technical Board of Appeal of the EPO decided (T 49/83, OJ 1984, 112) that a claim directed to a propagating material treated with chemical agents, for certain genera of plants (in this case cultivated plants), without specific varieties being claimed individually, does not contravene the prohibition of the patenting of plant varieties in Article 53(b) EPC. It would, therefore, seem that claims for plants which have been produced or treated by a technical process could be allowed even though a sub-claim for a particular variety would be refused.

(d) The question of whether a process is "essentially biological," depends, in the opinion of EPO, on the extent to which there is technical intervention by man in the process; if such intervention plays a significant part in determining or

controlling the result it is desired to achieve, the process would not be excluded (EPC Guidelines, C-IV, 3.4).

(e) With respect to microbiological inventions, microorganisms *per se* are not excluded from patent protection (EPC Guidelines, C-IV, 3.5). In the practice of the EPO, the term "microorganism" is interpreted rather broadly to include cellular organisms (bacteria, fungi—including yeast—, algae, protozoa, animal and plant cells *in vitro*, hybridomas) and non-cellular ones (phages, viruses and plasmids—the last two by express mention in the EPC Guidelines, C-IV, 3.5). Besides, the term "microbiological process" is interpreted as covering not only industrial processes using microorganisms but also processes for producing new microorganisms, e.g., by genetic engineering, as well as—for the purpose of Article 53(b)—the propagation of the microorganism itself (EPC Guidelines, C-IV, 3.5).

13. *German Democratic Republic* (12,705).⁶ Pursuant to Sections 5 and 6 of the Law of 1983 on the Legal Protection of Inventions (Patent Law), patents are not granted for: (i) technical solutions concerning substances obtained by a chemical or microbiological process or by nuclear fission or fusion (except for the processes of manufacture and utilization); (ii) inventions concerning foodstuff, expandable goods or medicaments (except for the process of manufacture); (iii) solutions for diagnosis, prevention and treatment of human and animal diseases (except for an apparatus); (iv) plant varieties and animal breeds, as well as growing or breeding methods; (v) essentially biological processes (except for microbiological processes); (vi) strains of microorganisms; and (vii) computer programs. For plant varieties protection is available under the Decree on the Legal Protection for New Plant Varieties of 1972.

14. *Spain* (9,115). Pursuant to Sections 4 and 5 of the Patent Law of 1986, the following subject matter is excluded from patenting: (i) computer programs; (ii) methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practiced on the human or animal body (with the exception of products, in particular substances or compositions, for use in any of these methods); and (iii) plant or animal varieties or essentially biological processes for the production of plants or animals (with the exception of microbiological processes or the products thereof). Pursuant to the first provision of the Transitional Provisions of the Patent Law of 1986, chemical products and pharmaceuticals are not patentable before October 7, 1992. This provision does not affect processes or apparatuses for the obtention of chemical products or pharmaceuticals nor the processes for the use of chemical products, all of which are patentable. Inventions of products obtained from microbiological processes also are not patentable until October 7, 1992.

15. *Czechoslovakia* (7,496).⁷ Under Section 28 of the Law on Discoveries, Inventions, Rationalization Proposals and Industrial Designs of 1972, no patent is granted for: (i) inventions of substances resulting from the transformation of the atomic nucleus and technical solutions solely relating to the obtaining or exploitation of nuclear energy; and (ii) inventions of medicaments, substances obtained through chemical processes, foodstuffs and microorganisms used in industrial

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

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

manufacture. Inventors' certificates can be granted for such inventions.

16. Australia (6,988).

(a) Under Section 155(1) of the Patents Act 1952, as last amended in 1985, the Commissioner of the Patents may refuse to accept an application and specification or to grant a patent on the ground that the specification claims as an invention a substance which is capable of being used as (i) food or (ii) medicine, whether for human beings or for animals and whether for internal or external use, and is a mere mixture of known ingredients, or a process producing such a substance by mere admixture.

(b) According to explanations given by the Australian Patent Office, the term "capable of being used as a food" is taken to include mixtures which may require cooking or other preparation before they are edible. If the result achieved by the invention is more than might be expected from a mere mixture (e.g., if the result is an unexpected, unpredictable, or synergistic effect), the invention is considered to be patentable. However, the unexpected, unpredictable or synergistic effect must be either obvious from or specifically described and supported in the specification. Furthermore, the unexpected result must derive from a functional relationship between the bodies forming the mixture (General Foods Corp.'s Application (1971) AOJP 2624). Under the practice of the Australian Patent Office, a substance is not excluded from being a mere admixture merely on the basis that the physical form of an ingredient has been changed. Mere admixture covers things which are also cooked after mixing, provided that there is no chemical combination of the ingredients which results from some process other than the admixture. For example, a sweet which was a mixture of sugar and cellulose which was turned into a hard sweet by boiling was considered to be a mere admixture as there was no alteration in the ingredients except to render the sugar amorphous (see Ashe Chemicals Ltd. (Deadman's) Appn. (1972) RPC 613 at 621).

(c) The following guidelines have been developed by the Australian Patent Office concerning each of the following fields.

(i) Plant Varieties

As a result of the decision *In the Matter of an Application by Rank Hovis McDougall Ltd.* (1976) AOJP 3195, a new variety of plant (provided it is not one that is naturally occurring) can be protected under the present patent legislation if a reproducible method of performance for its production is described in the specification. The matter of reproducibility is essential for the satisfaction of the requirements of Section 40 of the Patents Act. Reproducibility is a matter which has to be determined in relation to current technology, bearing in mind the number of attempts required to achieve the specified result. Thus a plant produced by a process of genetic engineering would clearly fall within this category, as would a plant produced by simply crossing two stated parents. However, a plant which is produced from a chance seedling (normally as the result of mutation produced, e.g., by cosmic radiation) would not fall into the required category. The Plant Variety Rights Act 1987, which is also available for protection of plant varieties, came into effect on May 1, 1987. This Act is administered by the Australian Department of Primary Industry.

(ii) Animal Varieties

The Australian Patent Office considers that its practice would be to allow patents for processes producing non-human animal varieties and the products of such processes. To date,

while no patents have been granted for non-human animal varieties, patent protection should be available for such inventions on the same general principles as it is available for microorganisms and plant varieties. Since the judgment of Barwick C.J. sitting on the bench of the High Court of Australia in *Berhard Joos v. Commissioner of Patents* 126 CLR 611, it has been the practice of the Office not to refuse applications relating to methods or processes for the treatment, medical or otherwise, of the human body (or part of it), only on the basis that a human body is involved: however, this practice does not, of course, permit claims to a human being whether "treated" by the process of the invention or otherwise.

(iii) Computer Programs

The Australian Patent Office considers computer programs as not patentable—not because they are specifically excluded, but because they fail to meet the criteria for patentability. Essentially, it is current practice of the Australian Patent Office that:

- (a) the patentability of method/process claims is assessed on the basis of a two-part test, on the same lines as the "Freeman Test"⁸ in the United States of America;
- (b) apparatus claims of the "means for" type, which are construed as claims to a computer when programmed, are essentially the same as the corresponding method/process claims and are treated in the same way;
- (c) existing policy regards as not novel other types of apparatus claims, i.e., computers capable of being programmed, or programs recorded on a suitable medium, characterized solely by the program itself;
- (d) claims to programs *per se* are refused; programs *per se* are protectable under the Copyright Act (*Computer Edge Pty. Ltd. v. Apple Computer Inc.* 6 IPR 1).

17. *South Africa (6,768).* According to Section 25 of the Patents Act No. 57 of 1978, as last amended in 1983, patents are not granted for: (i) computer programs; (ii) any variety of animal or plant or any essentially biological process for the production of animals or plants, not being a microbiological process or the product thereof; and (iii) an invention of a method of treatment of the human or animal body by surgery or therapy or of diagnosis practiced on the human or animal body.

18. Switzerland (6,421).⁹

(a) Under Sections 1a and 2 of the Federal Law on Patents for Inventions of 1954, as revised in 1976, the following

⁸ The two-part test for patentability, developed in *In re Freeman*, 197 USPQ 464, *In re Walter*, 205 USPQ 397 and *Diamond v. Diehr* 450 US 175, 209 USPQ 1, involves a consideration of the following two questions: (1) does the claim include subject matter which in itself is inherently unpatentable? (2) if so, what is the relationship between that subject matter and the claim as a whole? If the claim includes material which, in the terms of question (1) is "inherently unpatentable," it is not conclusive that the claim is unpatentable. In such a case it is necessary to go on to consider question (2). If, on consideration of the claim as a whole, it is concluded that it is an attempt to monopolize no more than the inherently unpatentable subject matter, then the claim is unpatentable.

⁹ This figure represents the number of national patents granted. In addition, the European Patent Office granted 8,119 patents with effect in Switzerland.

matters are excluded from patenting: (i) new varieties of plants or animal breeds or essentially biological processes for producing plants or breeding animals (except for microbiological processes and products obtained by such processes); and (ii) methods of surgical or therapeutic treatment and of diagnosis applied to the human body or to bodies of animals.

(b) With respect to new varieties of plants and animal breeds, according to the practice of the Swiss Federal Intellectual Property Office, claims relating to animals, plants or parts of a living entity will be accepted if the conditions in Sections 1 and 50 of the Patent Law are fulfilled and if those claims are not specific either to a new plant variety or to an animal breed. New plant varieties can be protected under the Federal Law of 1975 on the Protection of Plant Varieties (Examination Manual 232.2).

(c) As regards essentially biological processes for producing plants or breeding animals, a production or breeding process is considered "essentially biological," and therefore not patentable, when in its essence it belongs to biology, in other words to the field of the natural growth and reproduction of organisms. On the other hand, essentially technical processes are patentable, for instance a method of influencing growth by means of rays or growth factors (fertilizers, plant hormones, etc.).

(d) In practice, the Swiss Federal Intellectual Property Office applies the following rules to make the above distinction:

Certain types of process are in their essence connected with biology, that is, with the natural growth of living entities or their multiplication by vegetative or reproductive means. Operations such as sowing, pricking out or propagation by cutting, layering or crossing are therefore not patentable as a general rule; exceptions are those processes that are not confined to specific plants and are to be regarded rather as new, more or less generally applicable methods of work. Processes that in their essence belong to technology include treatments such as grafting, leaf thinning, pruning and also breeding processes based on the use of artificial nutritional environments, fertilizers or growth stimulants (hormones and antibiotics).

(e) The term "microorganism" is interpreted broadly, including in particular bacteria, mycoplasma, rickettsiae, moulds, yeasts, algae, protozoa, viruses and cell cultures.

(f) As regards methods of surgical or therapeutic treatment and of diagnosis applied to the human body or to bodies of animals, the exclusion applies if a treatment relates to curative purposes, in other words to the diagnosis, prevention, relief or cure of a sickness or injury. According to a ruling of the Federal Tribunal (ATF 108 II 221), the term "method of diagnosis" covers not only diagnosis in the sense of a finding but also the method of investigation whereby that finding is made.

(g) Concerning computer programs, the Federal Tribunal ruled that a computer program is not a technical process, as it does not implement the forces of nature. The Swiss Federal Intellectual Property Office makes in its practice a distinction between application programs and system programs. The former serve to process specific input data in order to obtain output data (results) dependent on them. It would be possible, at least in theory, to follow the directions of an application program without a computer and produce the same results with pencil and paper on the basis of the input data. System programs serve only to actuate the computer, and have no meaning other than in relation to it, without there being a

particular problem to solve through the electronic processing of the data. Application programs are not patentable, even in the form of processes for actuating computers. Where a claim relates to a computer programmed in a particular way, it has to be established whether the invention relates to the hardware or to the program; in the latter case, a patent cannot be granted for the computer. System programs, on the other hand, are patentable if they are presented in the form of processes for actuating a computer. Similarly, a computer programmed by means of a system program can be the subject matter of a patent. Under certain conditions, computer programs can enjoy the protection established by the Federal Law of 1922 on Copyright in Literary and Artistic Works (Examination Manual 223.4).

19. Sweden (5,681).¹⁰

(a) Pursuant to Section 1 of the Patents Act of 1967, as last amended in 1983, patents are not granted for: (i) computer programs as such; (ii) methods for surgical or therapeutic treatment or diagnostic methods practiced on humans or animals (except for products, including substances or composition of substances, for use in methods of this type and except for the treatment of animals where the purpose is not therapeutic or prophylactic); and (iii) plant or animal varieties or essentially biological processes for the production of plants or animals (however, microbiological processes and products resulting from such processes are expressly declared patentable).

(b) As regards computer programs, in 1974 the Supreme Administrative Court made a decision which rejected a patent application of protection of a computer related invention, the so-called "Benson Case." This decision laid down the principle that computer programs as such are of the same character as rules and methods for performing mental acts and therefore are excluded from patent protection. In 1978 the Patents Act was amended and harmonized with the European Patent Convention in general and also on this very point. It can be stated that the amended Section 1 of the Patents Act is in harmony with the earlier decision of the Supreme Administrative Court. A very recent decision of the Supreme Administrative Court confirms this principle and also those developed by the EPO and mentioned above. Computer programs can be protected by copyright law. That this is the case has been stated by the Government Committee for the Revision of the Copyright Law (SOU 1985:51). To make this completely clear, the Committee has proposed that computer programs should be explicitly mentioned in the exemplification of the protected works in the Copyright Act.

(c) As regards plant varieties, a plant variety right protection according to the UPOV Convention is available.

20. Poland (4,467). According to Sections 2 and 12 of the Law on Inventive Activity of 1972, as amended in 1984, patents are not granted for: (i) new plant varieties and animal breeds; (ii) processes for curing diseases in the field of medicine and veterinary science and in plant protection; (iii) computer programs; (iv) foodstuffs; (v) pharmaceutical products; (vi) chemical products; and (vii) products obtained by nuclear transformation (except for processes of manufacturing foodstuffs, pharmaceutical products, chemical products and products obtained by nuclear transformation).

¹⁰ This figure represents the number of national patents granted. In addition, the European Patent Office granted 7,839 patents with effect in Sweden.

21. *Brazil* (3,934). Under Section 9 of the Industrial Property Code of 1971, the following are not patentable: (i) substances, materials or products obtained by chemical processes or means (except for processes for obtaining or transforming such substances, materials or products); (ii) medicaments and nutritive or chemico-pharmaceutical substances, materials, mixtures or products, of any kind, including processes for obtaining or modifying them; (iii) the uses or application of discoveries, including varieties or species of microorganisms, for specific purposes; (iv) operating or surgical therapeutic techniques, not including devices, apparatus or machines; and (v) substances, materials, mixtures, components, or products of any kind, as well as the modification of their physical and chemical properties and the processes for obtaining or modifying them, which result from a transformation of the atomic nucleus. In addition, computer programs are considered as unpatentable.

22. *Greece* (3,225). Under Section 45 of Law No. 5607 of 1932, pharmaceutical preparations are not patentable.

23. *Romania* (2,786). Section 14 of the Law on Inventions and Innovations of 1974 expressly provides that a patent shall be granted to State-owned socialist organizations for inventions relating to substances obtained by means of nuclear and chemical methods, to medicinal products, to methods for diagnosis and medical treatment, to disinfectants, to food and spices, as well as to new varieties of plants, strains of bacteria and fungi, new breeds of animals and silkworms, regardless of the conditions under which they were created. The actual author is granted an inventor's certificate for such inventions (Section 15). Patents are granted to inventors for inventions other than those mentioned above.

24. *Austria* (2,571).¹¹ Pursuant to Sections 1 and 2 of the Patent Law of 1970, as amended in 1984 and 1986, patents are not granted for: (i) computer programs; (ii) methods for treatment of humans by surgery or therapy and diagnostic methods practiced on humans (except for products, in particular substances or compositions, for use in any of these methods); and (iii) plant or animal varieties (animal races) or essentially biological processes for the production of plants or animals. These exclusions do not apply to microorganisms as such or microbiological processes and products resulting from such processes. Alternative forms of protection for technical fields excluded from patent protection are designs and copyright.

25. *Republic of Korea* (2,268). According to Sections 3 and 4 of the Patent Law as last amended in 1982, patents are not granted for: (i) foodstuff and drinks; (ii) luxury consumer goods; (iii) medicines and processes of manufacturing a medicine by mixing two or more medicines; (iv) substances manufactured by a chemical process; (v) substances manufactured by the transformation of the atom; and (vi) inventions of use on nature inherent in chemical substances. Computer programs are protected under the Computer Program Protection Law of 1986.

26. *Norway* (2,165).

(a) According to Section 1 of the Patents Act of 1967, as last amended in 1980, patents are not granted for: (i) computer

programs; (ii) methods for surgical or therapeutic treatment or diagnostic methods practiced on humans or animals (except for products, including substances or composition of substances, for use in methods of this type); and (iii) plant or animal varieties or essentially biological processes for the production of plants or animals (except for microbiological processes and products resulting from such processes). Pursuant to Section 76 of the Patents Act, patents are not granted for food and pharmaceutical products until the King so decides. Such decision has not been made.

(b) With respect to alternative forms of protection, copyright protection is available for computer programs. No protection is available for other technological fields excluded from patent protection.

27. *Finland* (2,161). According to Section 1 of the Patent Law of 1967, as last amended in 1985, patents are not granted for: (i) computer programs; (ii) methods for surgical or therapeutic treatment or diagnostic methods practiced on humans or animals (except for products, including substances or composition of substances, for use in methods of this type); and (iii) plant or animal varieties or essentially biological processes for the production of plants or animals (except for microbiological processes and products resulting from such processes). According to a transitional provision in the Patent Law, product patents are not granted for medicines and food-stuffs.

28. *Netherlands* (2,145).¹² Pursuant to Section 3 of the Patents Act of the Kingdom of 1910, as last amended in 1978, no patent is granted in respect of plant or animal varieties or essentially biological processes for the production of plants or animals (with the exception of microbiological processes or the products thereof). Under the practice of the industrial property office, methods for treatment of the human or animal body are also excluded.

29. *Hungary* (2,095).

(a) Pursuant to Section 6 of the Law on the Protection of Inventions by Patents of 1969, as amended in 1983, patents are not granted for: (i) medicine; (ii) a product produced chemically; and, (iii) with the exception of plant varieties and animal breeds, food used for human or animal consumption (the process by which they are manufactured is, however, patentable).

(b) Under the practice of the National Office of Inventions, the following categories of inventions are excluded from patent protection: (iv) methods for treatment of human or animal body (since such methods do not meet the requirements of technical nature and practical applicability "as criteria of patentability"); (v) computer programs (they may be protected together with hardware elements indicated in the same main or coordinated claim, if it seems probable that the software and hardware factors assure jointly the effect of the solution constituting the subject matter of the patented invention; independent protection of software is possible within the framework of copyright law); (vi) microorganisms *per se* (they cannot be eligible for patent protection owing to the analogy with the "product produced chemically" excluded from patent protection, and products obtained by microbiological processes qualify as products produced chemically).

¹¹ This figure represents the number of national patents granted. In addition, the European Patent Office granted 6,171 patents with effect in Austria.

¹² This figure represents the number of national patents granted. In addition, the European Patent Office granted 9,822 patents with effect in the Netherlands.

30. *Belgium (1,976).*¹³ Pursuant to Sections 3, 4 and 7 of the Patent Law of 1984, patents are not granted for: (i) computer programs; (ii) new plant varieties of species or varieties covered by the Law of 1975 for the Protection of New Plant Varieties, animal varieties and essentially biological processes for the production of plants or animals (except microbiological processes or products obtained thereby); and (iii) methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practiced on the human or animal body, except for products, in particular, substances or compositions, for use in any of those methods.

31. *Bulgaria (1,850).*¹⁴ Pursuant to Section 14 of the Law on Inventions and Rationalizations of 1968, as last amended in 1982, patents are not granted for: (i) substances obtained by chemical processes (such processes being patentable); (ii) healing substances, foodstuff, gustatory and cosmetic substances, whether or not obtained by chemical processes (such processes being patentable); (iii) new methods of prophylaxis, diagnosis and treatment of human, animal and plant diseases; (iv) new species or varieties of agricultural crops or new animal breeds; and (v) technical solutions of problems bearing on the use of nuclear energy. Inventors' certificates may be granted for such inventions.

32. *India (1,814).* Pursuant to Sections 3, 4 and 5 of the Patent Act of 1970, patents are not granted for: (i) a method of agriculture or horticulture; (ii) any process for the medicinal, surgical, curative, prophylactic or other treatment of human beings or any process for a similar treatment of animals or plants to render them free of disease or to increase the economic value or that of their products; (iii) an invention relating to atomic energy; (iv) substances intended for use or capable of being used as food or as medicine or drug; (v) inventions relating to substances prepared or produced by chemical processes (in respect of (iv) and (v), claims for the methods or processes of manufacture are patentable).

33. *New Zealand (1,732).* In accordance with Section 17 of the Patents Act of 1953, as last amended in 1976, the Commissioner of Patents may refuse a patent application if it claims as an invention a substance capable of being used as food or medicine which is a mixture of known ingredients possessing only the aggregate of the known properties of the ingredients, or if it claims as an invention a process producing such a substance by mere admixture.

34. *Argentina (1,677).*¹⁵

(a) Under Section 4 of the Law on Patents for Inventions of 1864, as amended in 1967, pharmaceutical compositions are not patentable.

(b) According to a recent decision by the Supreme Court, endorsing the existing criteria, the exclusion of pharmaceutical compositions from patent protection is to be extended to those used by veterinarians.

(c) Alternative protection is available for seeds and phylogenetic creations under Law No. 20.247.

¹³ This figure represents the number of national patents granted. In addition, the European Patent Office granted 8,062 patents with effect in Belgium.

¹⁴ This figure represents the total number of patents and inventors' certificates granted.

¹⁵ This figure is based on 1984 statistics.

35. *Israel (1,636).* Under Section 7 of the Patents Law of 1967, patents are not granted for: (i) methods of therapeutical treatment of the human body and (ii) new varieties of plants and animals, except microbiological organisms which have not been derived from nature. Computer programs are excluded from patent protection by court decisions. Copyright protection is available for computer programs.

36. *Mexico (1,374).*¹⁶

(a) Pursuant to Sections 9 and 10 of the Law on Inventions and Marks of 1976, as amended in 1987, patents are not granted for: (i) computer programs; (ii) methods for treatment of humans, animals or plants by surgery or therapy and diagnostic methods with respect thereto; (iii) plant and animal varieties and essentially biological processes for their production; (iv) alloys (except for processes for their manufacture); (v) chemical products; (vi) chemical-pharmaceutical products; medicines in general, foods and drinks for animal consumption, fertilizers, plaguicides, herbicides, fungicides and products with biological activity; (vii) foods and drinks for human consumption and the processes to obtain them; (viii) inventions related to nuclear energy and nuclear safety, except those which, in accordance with the ruling of the National Commission on Nuclear Safety and Safeguards, are considered not to affect national security (in any case, the Commission will only determine if the invention submitted for study may or may not affect national security; a petition of administrative reconsideration against resolutions issued based on the determination of the Commission is not admitted); (ix) biotechnological processes for obtaining the following products: pharmachemicals, medicines in general, drinks and foods for animal consumption; fertilizers, plaguicides, herbicides, fungicides or products with biological activity; (x) genetic processes for obtaining vegetable and animal species or their varieties. The exclusions referred to in (v), (vi), (ix) and (x) are in force until January 1997; it will then be decided whether patents will be available for the said categories of inventions.

(b) Pursuant to Section 65, invention certificates can be obtained for processes for obtaining beverages and foods for human consumption and biotechnological processes for obtaining the following products: pharmachemicals; medicines in general; foods and beverages for animal consumption; fertilizers; plaguicides; herbicides; fungicides and products with biological activity.

37. *Philippines (1,281).* 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, does not contain any provision expressly excluding from patent protection any subject matter covered by this memorandum.

38. *Malaysia (1,150).* According to Section 13(l) of the Patents Act 1983, patents are not granted for: (i) plant or animal varieties or essentially biological processes for the production of plants or animals (other than man-made living microorganisms), microbiological processes and the products of such processes; (ii) methods for the treatment of the human or animal body by surgery or therapy, and diagnostic methods practiced on the human or animal body.

¹⁶ This figure represents the total number of patents and invention certificates granted.

39. Denmark (1,054).

(a) Pursuant to Section 1 of the Patents Act of 1967, as last amended in 1984, patents are not granted for: (i) computer programs; (ii) methods for surgical or therapeutic treatment or diagnostic methods practiced on humans or animals (except for products, including substances or compositions of substances, for use in methods of this type); and (iii) plant or animal varieties or essentially biological processes for the production of plants or animals (except for microbiological processes and products resulting from such processes). New plant varieties can be protected under the Law on the Protection of Plant Breeders' Rights.

(b) Furthermore, in accordance with the said Section, patents for inventions of food products and patents for processes for the manufacture of food products are not granted until after a date to be fixed by the Minister of Commerce. This date has not yet been fixed, which means that food products and processes for the manufacture of food products are still excluded from patent protection.

40. Yugoslavia (1,053). Pursuant to Sections 20 and 23 of the Law on the Protection of Inventions, Technical Improvements and Distinctive Signs of 1981, patents are not granted for: (i) computer programs; (ii) chemical products, except chemical processes for their manufacture; (iii) alloys, except processes for their manufacture; (iv) pharmaceutical and food products for humans and animals, fertilizers, pesticides, herbicides and fungicides, except chemical processes for their manufacture; (v) inventions related to production and use of nuclear fuel; (vi) devices and means of protection from contamination and processes for their manufacture; and (vii) plant and animal species, biological processes for the obtaining thereof and microorganisms, with the exception of processes for obtaining microorganisms and processes for the preparation of products obtained with the use of microorganisms. Moreover, under the practice of the Federal Patent Office, methods for treatment of the human or animal body are excluded from patent protection as a result of the interpretation of Section 20 of the Law.

41. Ireland (1,042). According to Section 15 of the Patents Act of 1964, as last amended in 1966, patents are granted for pharmaceutical and food products and processes except where the product consists in a substance which is a mixture of known ingredients possessing only the aggregate of the known properties of the ingredients, or where the process produces such substance by mere admixture.

42. Portugal (960).

(a) In accordance with Section 5 of the Code on Industrial Property of 1940, as last amended in 1984, patents are not granted for: foodstuff or pharmaceutical products and preparations for human and animal consumption (apparatus or systems for their manufacture are patentable); and chemical products consisting of well-defined elements or resulting from the total or partial inter-reaction of well-defined elements (processes for obtaining these products are patentable).

(b) In addition, under the practice of the National Institute of Industrial Property, patents are not granted for: (i) computer programs; (ii) plant varieties and animal races; and (iii) biological processes for obtaining plants or animals (except for those containing a novel technical intervention which brings about a new result).

43. Luxembourg (418).¹⁷ In accordance with Section 1 of the Patent Law of 1880, as last amended in 1978, patents are not granted for inventions concerning plant varieties or animal breeds, and also essentially biological processes for the production of plants or animals (except for microbiological processes or the products thereof).

44. Turkey (385). Pursuant to the Patent Law of 1879 and Decree No. 51 of 1961, patents are not granted for pharmaceutical compositions, medicines and remedies of all kinds, whether for human or veterinary use, as well as all methods or processes for preparing the same.

45. Venezuela (351). Pursuant to Section 15 of the Industrial Property Act of 1955, patents are not granted for beverages and foods for man or animals; medicines; pharmaceutical medicinal preparations and chemical preparations, reactions and compounds.

46. Iran (Islamic Republic of) (339). Under Section 28 of the Law on the Registration of Trademarks and Patents of Invention of 1931, patents are not granted for pharmaceutical formulae and compounds.

47. Morocco (313).

(a) Pursuant to Section 25 of the Law Relating to the Protection of Industrial Property in the French Zone of Morocco of 1916, as last amended in 1957, patents are not granted for pharmaceutical compositions or remedies of all kinds except for processes and apparatus for their preparation. According to Section 17 of the Law on the Protection of Industrial Property in the Zone of Tangiers of 1938, as last amended in 1954, patents are not granted for: (i) the final products of the chemical industry or products of the chemical industry resulting from the final association of elements with a total or partial reaction of such elements among themselves; and (ii) for pharmaceutical compositions and remedies except for processes or methods for their obtention.

(b) No alternative form of protection is available for inventions in the above fields.

48. Egypt (298). According to Section 2 of Law No. 132 on Patents for Invention and on Industrial Designs of 1949, as last amended in 1955, patents are not granted for: chemical inventions in foodstuff, medical substances or pharmaceutical compositions, unless such products are manufactured pursuant to special chemical methods or processes in which case the patent will cover not the products themselves but the means of manufacture.

49. OAPI (298). Pursuant to Article 5 of Annex I of the Agreement Relating to the Creation of an African Intellectual Property Organization (Bangui Act of 1977), patents are not granted for: (i) plant or animal varieties or essentially biological processes for the production of plants or animals, other than microbiological processes and products obtained thereby; (ii) methods for the treatment of the human or animal body by surgery or therapy as well as diagnostic methods; and (iii) computer programs.

¹⁷ This figure represents the number of national patents granted. In addition, the European Patent Office granted 3,515 patents with effect in Luxembourg.

50. *Zimbabwe* (212). According to Section 13 of the Patents Act of 1972, as last amended in 1984, the Registrar may refuse a patent application if it claims as an invention a substance capable of being used as food or medicine which is a mixture of known ingredients possessing only the aggregate of the known properties of the ingredients, or if it claims as an invention a process producing such a substance by mere admixture.

51. *Uruguay* (196). Pursuant to Section 3 of the Law on Patents of Invention of 1941, medicinal compositions and chemical products (but not processes for the manufacture of such compositions and products) are not patentable.

52. *Colombia* (169).

(a) Pursuant to Sections 4 and 5 of the Decree of 1978, incorporating Decision 85 of the Commission of the Cartagena Agreement into national law, patents are not granted for: (i) therapeutic or surgical methods for human or animal treatment and methods of diagnosis; (ii) plant varieties or animal breeds, or essentially biological processes for the production of plants or animals; (iii) pharmaceutical products, medicines, active therapeutical substances, beverages and foodstuff for human, animal or vegetative use.

(b) According to Section 538 of the Commercial Code of 1971, processes for the obtention of pharmaceutical products and substances, beverages and foodstuffs can be patented only if they are exploited in Colombia.

53. *Cuba* (149).¹⁸ According to Section 39 of the Decree-Law on Inventions, Scientific Discoveries, Industrial Designs, Marks and Appellations of Origin of 1983, patents are not granted for: (i) plant varieties and animal breeds; strains of microorganisms; (ii) foodstuff and medicines; (iii) methods for the prevention, diagnosis and cure of disease in human beings, animals and plants; (iv) substances obtained by chemical means; and (v) processes that use nuclear technology, substances obtained thereby and forms of use of nuclear energy. Inventors' certificates can be granted for such inventions.

54. *Peru* (148). Pursuant to Articles 4 and 5 of Decision 85 of the Commission of the Cartagena Agreement effective in Peru through the Decree-Law of 1979, patents are not granted for: (i) therapeutic or surgical methods for human or animal treatment and methods of diagnosis; (ii) plant varieties or animal breeds, or essentially biological processes for the production of plants or animals; (iii) pharmaceutical products, medicines, active therapeutical substances, beverages and foodstuffs for human, animal or vegetative use.

55. *Sri Lanka* (112). Under Section 59 of the Code of Intellectual Property Act of 1979 as amended in 1983, patents are not granted for: (i) plant or animal varieties or essentially biological processes for the production of plants or animals, other than microbiological processes and the products of such processes; and (ii) methods for the treatment of the human or animal body by surgery or therapy and diagnostic methods practiced on the human or animal body, provided, however, that this exclusion does not apply to the products used in any such methods.

¹⁸ This figure represents the total number of patents and inventors' certificates granted.

56. *Iraq* (103). Pursuant to Section 3 of the Patents and Industrial Designs Law of 1970, patents are not granted for medical and pharmaceutical preparations.

57. *Kenya* (98). Under the Patents Registration Act of 1953, as last amended in 1973, the exclusions provided for in the United Kingdom apply.

58. *Zaire* (93).¹⁹ The Law on Industrial Property of 1982 does not provide for any exclusions.

59. *Ecuador* (92).²⁰ Pursuant to Articles 4 and 5 of Decision 85 of the Commission of the Cartagena Agreement effective in Ecuador through the Decree of 1977, patents are not granted for: (i) therapeutic or surgical methods for human or animal treatment and methods of diagnosis; (ii) plant varieties or animal breeds, or essentially biological processes for the production of plants or animals; (iii) pharmaceutical products, medicines, active therapeutical substances, beverages and foodstuffs for human, animal or vegetative use.

60. *Zambia* (74). Pursuant to Section 18 of the Patents Act of 1958, as amended in 1980, the Registrar may refuse a patent application if it claims as an invention a substance capable of being used as food or medicine which is a mixture of known ingredients possessing only the aggregate of the known properties of the ingredients, or if it claims as an invention a process producing such a substance by mere admixture.

61. *Bahamas* (66). According to Section 9 of the Industrial Property Act of 1965, patents are not granted for plant or animal varieties or essentially biological processes for the production of plants or animals.

62. *Monaco* (66). Pursuant to Section 3 of the Law on Patents of Invention of 1955, as amended in 1956, patents are not granted for pharmaceutical compositions or remedies of any kind, but processes, devices or other means for obtaining such products are patentable. With respect to the technological fields excluded from patent protection, no other type of protection is available.

63. *Bolivia* (62). Pursuant to Section 3 of the Patent Act (Industrial Privileges) of 1916, as amended in 1955, and the Patent Decrees of 1970 and 1971, patents are not granted for chemical and biological products, pharmaceutical compositions and formulas, dietetic products and foods.

64. *Thailand* (45). Pursuant to Section 9 of the Patent Act of 1979, patents are not granted for: (i) food, beverages, a pharmaceutical product or a pharmaceutical ingredient; (ii) any machine particularly made for use in agriculture; (iii) any variety of animal or plant, or any essentially biological process for the production of animals or plants; (iv) a computer program.

65. *China* (44).²¹ According to Article 25 of the Patent Law of 1984, patents are not granted for: (i) methods for the diag-

¹⁹ This figure is based on 1984 statistics.

²⁰ This figure is based on 1984 statistics.

²¹ This figure indicates patents for which applications were filed less than nine months before grant (since the Chinese Patent Law came into effect on April 1, 1985). Consequently, the figure is not characteristic at all.

nosis or for the treatment of diseases; (ii) food, beverages and flavorings (however, patent rights may be granted for the relevant processes); (iii) pharmaceutical products and substances obtained by means of a chemical process (however, patent rights may be granted for the relevant processes); (iv) animal and plant varieties (however, patent rights may be granted for the relevant processes); and (v) substances obtained by means of nuclear transformation.

66. *Cyprus* (43). Under the Patent Law of 1957, the exclusions provided for in the United Kingdom apply.

67. *Malawi* (43). In accordance with Section 18 of the Patents Act of 1957, as last amended in 1967, patents are not granted for: a substance capable of being used as food or medicine which is a mixture of known ingredients possessing only the aggregate of the known properties of the ingredients, or a process producing such a substance by mere admixture.

68. *United Republic of Tanzania* (30). Under the Patents (Registration) Ordinance of Tanganyika of 1931, as last amended in 1962, and the Patents Decree of Zanzibar of 1930, as last amended in 1958, the exclusions provided for in the United Kingdom apply.

69. *Mongolia* (28).²² Pursuant to Sections 358 and 359 of the Civil Code of 1963, patents are not granted for: (i) medicinal and nutritive substances obtained by non-chemical means (patents may be granted for the relevant processes); (ii) methods of treatment of diseases, and for obtaining new strains of livestock, poultry, crops and plants; and (iii) substances obtained through chemical means (however, the relevant processes may be protected). Inventors' certificates can be obtained for (i) and (ii).

70. *Uganda* (26). Under the Patents Act of 1939, as last amended in 1964, the exclusions provided for in the United Kingdom apply.

71. *Iceland* (21). According to Section 1 of the Law Relating to Patents of 1923, as last amended in 1984, patents are not granted for new medicines, consuming matter and drugs (processes for making such matter can be patented).

72. *Malta* (20). Under the Industrial Property (Protection) Ordinance of 1899, as amended in 1977, the exclusions provided for in the country with which Malta has made an arrangement apply. No information is available on the question of which is such country.

73. *Barbados* (15). Pursuant to Section 14 of the Patents Act of 1981, as amended in 1984, patents are not granted for: (i) plant varieties, animal varieties and essentially biological processes for the production of plants, other than microbiological processes and the products of those processes; (ii) methods for treatment of human beings or animals by surgery or therapy (not products for use in such methods); (iii) diagnostic methods practiced on human beings or animals (not products for use in such methods); and (iv) inventions excluded from protection by order of the Minister. Furthermore, the Minister may, by order, exclude from

protection, for a period of not more than 10 years, inventions relating to those products or processes that he considers essential for the development of Barbados; the 10-year period may be extended by the Minister in respect of any invention for one additional period not exceeding 10 years (Section 15).

74. *Viet Nam* (14).²³ Pursuant to Section 15 of the Ordinance on Inventions to Effect Technical Improvements and Rationalizations in Production and on Inventions of 1981, patents are not granted for: (i) inventions concerning devices and processes for preventing, diagnosing and treating disease in human beings, animals and plants; (ii) inventions relating to substances obtained by a chemical process; (iii) medicines and substances for the prevention and treatment of disease in human beings, animals and plants; and (iv) foodstuffs intended for human beings and fodder intended for animals. Inventors' certificates can be granted for such inventions.

75. *Haiti* (9). The Law Relating to Patents of Invention and Industrial Designs of 1922, as last amended in 1924, does not provide for any exclusion.

76. *Burundi* (7).²⁴ The Patent Law of 1964, as last amended in 1968, does not provide for any exclusion.

77. *Mauritius* (4). The law expressly provides that new chemical products constitute an invention and therefore are patentable (Section 3 of the Patents Ordinance of 1875, as last amended in 1983).

78. *ARIPO* (I). The Protocol on Patents and Industrial Designs of 1982 and its Implementing Regulations are silent on this question. Section 3(6) of the Protocol allows a designated State six months from the date of the notification by the ARIPO Office of its decision to grant a patent to communicate that the patent shall have no effect in its territory for the reason that, because of the nature of the invention, a patent cannot be granted under the national law of that State.

79. *Ghana* (1). In accordance with Section 1 of the Patents Registration (Amendment) Decree (NRCD 81) of 1972, patents are not granted for any drug, medicine or pharmaceutical preparation, substance or material. The exclusions provided for in the United Kingdom also apply.

80. *Rwanda* (1). The Patent Law of 1963 does not provide for any exclusion.

81. *Sudan* (1). The Patents Act of 1971 does not provide for any exclusion.

82. *Algeria* (no patents or inventors' certificates were granted in 1985 or in previous years). Under Section 5 of the Ordinance on Inventors' Certificates and Patents of 1966, patents are not granted for: plant or animal varieties as well as essentially biological processes for their production, except for microbiological processes and products obtained thereby.

83. *Benin* (-). See OAPI.

²² This figure represents the total number of patents and inventors' certificates granted. No patents were granted in 1985.

²³ This figure is based on 1984 statistics.

84. *Burkina Faso* (-). See OAPI.
85. *Cameroon* (-). See OAPI.
86. *Central African Republic* (-). See OAPI.
87. *Chad* (-). This country is a member of OAPI but is bound by the Libreville Agreement which, in Article 3 of its Annex I, excludes pharmaceutical compositions and remedies from patenting.
88. *Congo* (-). See OAPI.
89. *Côte d'Ivoire* (-). See OAPI.
90. *Democratic People's Republic of Korea* (*no statistical information available*). The Law on Inventions and Innovations of 1978 as revised does not provide for any exclusion.
91. *Dominican Republic* (*no statistical information available*). The Law on Patents for Invention of 1911 does not provide for any exclusion.
92. *Gabon* (-). See OAPI.
93. *Guinea* (*no statistical information available*). No information is available on the law.
94. *Holy See* (*no patents granted; however, Italian patents are also valid in the Holy See*). Italian law applies.
95. *Indonesia* (*no patents granted in 1985 or in previous years*). The announcements of the Ministry of Justice relating to Provisional Measures in View of Introducing Patent Legislation, 1953, do not provide for any exclusion.
96. *Jordan* (*no statistical information available*). The Patents and Designs Law of 1953 does not provide for any exclusion.
97. *Lebanon* (*no statistical information available*). Pursuant to Section 3 of the Decree Regulating the Rights of Commercial, Industrial, Artistic, Literary and Musical Property of 1924, as last amended in 1946, patents are not granted for pharmaceutical formulae and compositions.
98. *Libya* (*no statistical information available*). Pursuant to Section 2 of the Law Relating to Patents, Designs and Industrial Models of 1959, patents are not granted for: chemical inventions connected with foodstuff or medicinal drugs or pharmaceutical compositions, unless such products are produced by special chemical methods or processes, in which case the patent shall not be granted in respect of the products *per se* but in respect of the process of manufacture.
99. *Liechtenstein* (*no patents granted; however, Swiss patents are also valid in Liechtenstein*). Swiss law applies.
100. *Madagascar* (*no statistical information available*). No information is available on the law.
101. *Mali* (-). See OAPI.
102. *Mauritania* (-). See OAPI.
103. *Niger* (-). See OAPI.
104. *Nigeria* (*no statistical information available*). According to Section 1 of Decree No. 60 on Patents and Designs of 1970, patents are not granted for: plant or animal varieties or essentially biological processes for the production of plants or animals (other than microbiological processes and their products).
105. *Pakistan* (*no statistical information available*).
- The Patents and Designs Act of 1911, as amended in 1983, does not provide for any exclusion.
 - According to the practice of the Pakistan Patent Office, "patent medicines" cannot be registered under the Patents and Designs Act of 1911.
106. *San Marino* (*no patents granted; however, Italian patents are also valid in San Marino*). Italian law applies.
107. *Senegal* (-). See OAPI.
108. *Suriname* (*no statistical information available*). No information is available on the law.
109. *Syria* (*no statistical information available*). According to Section 6 of the Legislative Decree Relating to the Protection of Commercial and Industrial Property of 1946, as last amended in 1980, patents are not granted for pharmaceutical formulae and compositions.
110. *Togo* (-). See OAPI.
111. *Trinidad and Tobago* (*no statistical information available*). The Patents and Designs Act of 1900, as last amended in 1979, does not provide for any exclusion.
112. *Tunisia* (*no statistical information available*). According to Section 3 of the Law on Patents for Invention of 1888, as last amended in 1956, patents are not granted for food or medical products (but patents are granted for processes especially related to their manufacture).

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 34 of Annex I);
- ARIPO (1) (see paragraph 78 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 61 of Annex I);
- Barbados (15) (see paragraph 73 of Annex I);
- Belgium (1,976) (see paragraph 30 of Annex I);
- Bolivia (62) (see paragraph 63 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 76 of Annex I);
- Canada (18,697) (see paragraph 11 of Annex I);
- China (44) (see paragraph 65 of Annex I);
- Colombia (169) (see paragraph 52 of Annex I);

Cuba (149) (see paragraph 53 of Annex I);
 Cyprus (43) (see paragraph 66 of Annex I);
 Czechoslovakia (7,496) (see paragraph 15 of Annex I);
 Denmark (1,054) (see paragraph 39 of Annex I);
 Ecuador (92) (see paragraph 59 of Annex I);
 Egypt (298) (see paragraph 48 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);
 Ghana (1) (see paragraph 79 of Annex I);
 Greece (3,225) (see paragraph 22 of Annex I);
 Haiti (9) (see paragraph 75 of Annex I);
 Hungary (2,095) (see paragraph 29 of Annex I);
 Iceland (21) (see paragraph 71 of Annex I);
 India (1,814) (see paragraph 32 of Annex I);
 Iran (339) (see paragraph 46 of Annex I);
 Iraq (103) (see paragraph 56 of Annex I);
 Ireland (1,042) (see paragraph 41 of Annex I);
 Israel (1,636) (see paragraph 35 of Annex I);
 Italy (37,494) (see paragraph 7 of Annex I);
 Japan (50,100) (see paragraph 6 of Annex I);
 Kenya (98) (see paragraph 57 of Annex I);
 Luxembourg (418) (see paragraph 43 of Annex I);
 Malawi (43) (see paragraph 67 of Annex I);
 Malaysia (1,150) (see paragraph 38 of Annex I);
 Malta (20) (see paragraph 72 of Annex I);
 Mauritius (4) (see paragraph 77 of Annex I);
 Mexico (1,374) (see paragraph 36 of Annex I);
 Monaco (66) (see paragraph 62 of Annex I);
 Mongolia (28) (see paragraph 69 of Annex I);
 Morocco (313) (see paragraph 47 of Annex I);
 Netherlands (2,145) (see paragraph 28 of Annex I);
 New Zealand (1,732) (see paragraph 33 of Annex I);
 Norway (2,165) (see paragraph 26 of Annex I);
 OAPI (298) (see paragraph 49 of Annex I);
 Peru (148) (see paragraph 54 of Annex I);
 Philippines (1,281) (see paragraph 37 of Annex I);
 Poland (4,467) (see paragraph 20 of Annex I);
 Portugal (960) (see paragraph 42 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 80 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 55 of Annex I);
 Sudan (1) (see paragraph 81 of Annex I);
 Sweden (5,681) (see paragraph 19 of Annex I);
 Switzerland (6,421) (see paragraph 18 of Annex I);
 Thailand (45) (see paragraph 64 of Annex I);
 Turkey (385) (see paragraph 44 of Annex I);
 Uganda (26) (see paragraph 70 of Annex I);
 United Kingdom (20,880) (see paragraph 9 of Annex I);
 United Republic of Tanzania (30) (see paragraph 68 of Annex I);
 United States of America (71,661) (see paragraph 5 of Annex I);
 Uruguay (196) (see paragraph 51 of Annex I);
 Venezuela (351) (see paragraph 45 of Annex I);
 Viet Nam (14) (see paragraph 74 of Annex I);

Yugoslavia (1,053) (see paragraph 40 of Annex I);
 Zaire (93) (see paragraph 58 of Annex I);
 Zambia (74) (see paragraph 60 of Annex I);
 Zimbabwe (212) (see paragraph 50 of Annex I).

II. Other Regional Conventions and Countries

Algeria (no patents granted) (see paragraph 82 of Annex I);
 Benin (-) (see paragraph 83 of Annex I);
 Burkina Faso (-) (see paragraph 84 of Annex I);
 Cameroon (-) (see paragraph 85 of Annex I);
 Central African Republic (-) (see paragraph 86 of Annex I);
 Chad (-) (see paragraph 87 of Annex I);
 Congo (-) (see paragraph 88 of Annex I);
 Côte d'Ivoire (-) (see paragraph 89 of Annex I);
 Democratic People's Republic of Korea (no statistical information available) (see paragraph 90 of Annex I);
 Dominican Republic (no statistical information available) (see paragraph 91 of Annex I);
 Gabon (-) (see paragraph 92 of Annex I);
 Guinea (no statistical information available) (see paragraph 93 of Annex I);
 Holy See (no patents granted) (see paragraph 94 of Annex I);
 Indonesia (no patents granted) (see paragraph 95 of Annex I);
 Jordan (no statistical information available) (see paragraph 96 of Annex I);
 Lebanon (no statistical information available) (see paragraph 97 of Annex I);
 Libya (no statistical information available) (see paragraph 98 of Annex I);
 Liechtenstein (no patents granted) (see paragraph 99 of Annex I);
 Madagascar (no statistical information available) (see paragraph 100 of Annex I);
 Mali (-) (see paragraph 101 of Annex I);
 Mauritania (-) (see paragraph 102 of Annex I);
 Niger (-) (see paragraph 103 of Annex I);
 Nigeria (no statistical information available) (see paragraph 104 of Annex I);
 Pakistan (no statistical information available) (see paragraph 105 of Annex I);
 San Marino (no patents granted) (see paragraph 106 of Annex I);
 Senegal (-) (see paragraph 107 of Annex I);
 Suriname (no statistical information available) (see paragraph 108 of Annex I);
 Syria (no statistical information available) (see paragraph 109 of Annex I);
 Togo (-) (see paragraph 110 of Annex I);
 Trinidad and Tobago (no statistical information available) (see paragraph 111 of Annex I);
 Tunisia (no statistical information available) (see paragraph 112 of Annex I).

ANNEX III

Statistics

1. This Annex lists the countries party to the Paris Convention, nine other countries (Bolivia, Colombia,

Ecuador, India, Malaysia, Pakistan, Peru, Thailand, Venezuela) and three regional patent conventions, namely the Protocol of the African Regional Industrial Property Organization (ARIPO), the European Patent Convention (EPC) and the Agreement Relating to the Creation of an Intellectual Property Organization (Bangui Act) within the framework of the African Intellectual Property Organization (OAPI) in descending order of the number of patents and (where applicable) inventors' certificates granted in 1985 and, for each of them, it indicates, for each of the 19 technological fields covered in Annex I:

- (a) where patent protection is excluded, that fact, by the word "excluded";
 - (b) where patent protection is not excluded, the percentage that the number of grants represents in the total number of grants of that country or regional office (except in the fields of computer programs and of methods for treatment of the human or animal body, where the percentages are not known).
2. The data concerning each of the 19 technological fields were extracted from the INPADOC data base. Each technological field was determined in terms of the IPC classification symbol or symbols corresponding to it. The fact that for

certain countries the existence of grants is indicated in a technological field for which patent protection is not available is attributable to the fact either that what was granted were inventors' certificates rather than patents and/or that the classification symbols attributed to certain inventions by the office granting the patents do not correspond to the classification symbols attributed in this study to the technological fields considered to be "excluded" (i.e., for which no patent protection is available).

3. Any patent document may bear one or several classification symbols. For the purposes of the present Annex, where several symbols appear in a patent document, only the first was taken into consideration with two exceptions: pharmaceutical processes and anticontaminant processes, where a combination of two symbols (one "process" and one "application" symbols) were used.

4. It is recognized that the methodology applied could be improved. The data that the present Annex reflects should be considered merely as a first attempt at producing data and as an approximation of the actual facts. Should it be found worthwhile to perfect this Annex, further efforts will be made in that direction.

Part A, Table I

| | (i) Technological Field Chemical Products % | Country or Regional Office | (ii) Technological Field | |
|----------|---|---|--|---|
| | | | Pharmaceutical Products (a) % | Pharmaceutical Processes for Manufacture of Pharmaceutical Products (b) % |
| excluded | 5.12 | Soviet Union (74,590) | excluded | 0.43 |
| | 11.57 | United States of America (71,661) | | 1.88 |
| | 13.93 | Japan (50,100) | | 0.62 |
| | 11.53 | Italy (37,494)* | | 1.91 |
| | 10.03 | France (24,195) | | 0.82 |
| | 10.50 | United Kingdom (20,880) | | 0.72 |
| | 8.58 | Germany (Federal Republic of) (19,500) | | 0.52 |
| | 18.23 | Canada (18,697) | excluded | 1.54 |
| | 22.03 | European Patent Convention (EPC) (15,117) | | 1.35 |
| excluded | 11.04 | German Democratic Republic (12,705) | excluded | 0.45 |
| excluded | 34.47 | Spain (9,115) | excluded | 2.10 |
| excluded | 17.19 | Czechoslovakia (7,496) | excluded | 0.62 |
| | 13.46 | Australia (6,988) | excluded | 4.58 |
| | | South Africa (6,768) | | |
| | 16.91 | Switzerland (6,421)** | | 2.37 |
| | 12.61 | Sweden (5,681) | | 1.00 |
| excluded | 17.25 | Poland (4,467) | excluded | 0.43 |
| excluded | 16.55 | Brazil (3,934) | excluded | 0.23 |
| | | Greece (3,225) | excluded | |
| excluded | 23.25 | Romania (2,786) | excluded | 2.63 |
| | 12.35 | Austria (2,571) | | 0.62 |
| | | | | 6.67 |

* Includes the Holy See and San Marino.

** Includes Liechtenstein.

Part A, Table II

| (i) Technological Field | | Country or Regional Office | (ii) Technological Field | | |
|----------------------------|-------|----------------------------|-----------------------------------|--|---------------|
| | | | Pharmaceutical Products (a) | Pharmaceutical Processes for Manufacture of Pharmaceutical Products (b) | % |
| excluded | 26.90 | Republic of Korea (2,268) | excluded | 0.96 | excluded 7.43 |
| | 22.43 | Norway (2,165) | excluded | 0.65 | 10.95 |
| | 21.40 | Finland (2,161) | excluded | 0.78 | 14.52 |
| | 23.80 | Netherlands (2,145) | | 1.70 | 11.65 |
| excluded | 27.71 | Hungary (2,095) | excluded | 2.31 | 3.47 |
| | 11.20 | Belgium (1,976) | | 5.56 | 7.30 |
| excluded | 20.05 | Bulgaria (1,850) | excluded | 0.23 | 6.16 |
| excluded | 19.39 | India (1,814) | excluded | 2.03 | 5.79 |
| | 33.55 | New Zealand (1,732) | excluded | 4.80 | 6.89 |
| | 19.38 | Argentina (1,677) | | 2.96 | 3.62 |
| | 40.42 | Israel (1,636) | | 3.83 | 3.95 |
| excluded | 20.47 | Mexico (1,374) | excluded | 1.39 | 6.26 |
| | 28.86 | Philippines (1,281) | | 13.80 | 5.59 |
| | | Malaysia (1,150) | | | |
| | 19.72 | Denmark (1,054) | | 0.47 | 5.38 |
| excluded | 40.55 | Yugoslavia (1,053) | excluded | 0.71 | 6.00 |
| | 39.97 | Ireland (1,042) | | 5.46 | 6.82 |
| excluded | 45.23 | Portugal (960) | excluded | 3.79 | 6.35 |
| | 31.10 | Luxembourg (418) | | 10.53 | 10.25 |
| | 15.49 | Turkey (385) | excluded | 0 | 7.04 |
| excluded | | Venezuela (351) | excluded | | |
| | | Iran (339) | excluded | | |

Part A, Table III

| (i) Technological Field | | Country or Regional Office | (ii) Technological Field | | |
|----------------------------|----------------------------------|----------------------------|-----------------------------------|-------------|--|
| Chemical Products | % | | Pharmaceutical Products (a) | % | Pharmaceutical Processes for Manufacture of Pharmaceutical Products (b) |
| excluded | Morocco (313) | excluded | | | |
| 13.51 | Egypt (298) | excluded | 9.46 | 5.49 | |
| | OAPI (298) | | | | |
| 35.43 | Zimbabwe (212) | excluded | 12.00 | excluded | 0 |
| excluded | Ururuy (196) | excluded | | | |
| | Colombia (169) | excluded | | excluded*** | |
| excluded | Cuba (149) | excluded | | | |
| | Peru (148) | excluded | | | |
| | Sri Lanka (112) | | | | |
| | Iraq (103) | excluded | | | |
| 45.78 | Kenya (98) | | 9.64 | 6.33 | |
| | Zaire (93) | | | | |
| | Ecuador (92) | excluded | | | |
| 31.34 | Zambia (74) | excluded | 13.43 | excluded | 6.67 |
| | Bahamas (66) | | | | |
| 15.15 | Monaco (66) | excluded | 7.58 | 19.61 | |
| excluded | Bolivia (62) | excluded | | | |
| | Thailand (45) | excluded | | | |
| excluded 11.11 | China (44) | excluded | 0 | 7.89 | |
| 72.50 | Cyprus (43) | | 12.50 | 1.43 | |
| 24.32 | Malawi (43) | excluded | 10.81 | excluded | 6.52 |
| | United Republic of Tanzania (30) | | | | |

*** Unless they are exploited in Colombia.

Part A, Table IV

| <i>(i) Technological Field</i> | <i>Country or Regional Office</i> | <i>(ii) Technological Field</i> | | |
|--|-----------------------------------|--|--|---|
| | | <i>Pharmaceutical Products (a)</i> | <i>Pharmaceutical Processes for Manufacture of Pharmaceutical Products (b)</i> | |
| <i>Chemical Products</i> <i>%</i> | | <i>%</i> | <i>%</i> | |
| excluded 27.78 | Mongolia (28) | excluded | 22.22 | 0 |
| | Uganda (26) | | | |
| | Iceland (21) | excluded | | |
| | Malta (20) | | | |
| | Barbados (15) | | | |
| excluded 22.12 | Viet Nam (14) | excluded | 0 | 0 |
| | Haiti (9) | | | |
| | Burundi (7) | | | |
| | Mauritius (4) | | | |
| | ARIPO (1) | | | |
| | Ghana (1) | excluded | | |
| | Rwanda (1) | | | |
| | Sudan (1) | | | |
| | Algeria (no patents granted) | | | |
| | Benin (-) | | | |
| | Burkina Faso (-) | | | |
| | Cameroon (-) | | | |
| | Central African Republic (-) | | | |
| | Chad (-) | excluded | | |
| | Congo (-) | | | |
| | Côte d'Ivoire (-) | | | |

Part A, Table V

| (i) Technological Field Chemical Products % | Country or Regional Office | (ii) Technological Field | |
|---|---|--|---|
| | | Pharmaceutical Products (a) % | Pharmaceutical Processes for Manufacture of Pharmaceutical Products (b) % |
| | Democratic People's Republic of Korea (+) | | |
| | Dominican Republic (+) | | |
| | Gabon (-) | | |
| | Guinea (+) | | |
| | Indonesia (no patents granted) | | |
| | Jordan (+) | | |
| | Lebanon (+) | excluded | |
| | Libya (+) | excluded | |
| | Madagascar (+) | | |
| | Mali (-) | | |
| | Mauritania (-) | | |
| | Niger (-) | | |
| | Nigeria (+) | | |
| | Pakistan (+) | excluded | |
| | Senegal (-) | | |
| | Suriname (+) | | |
| | Syria (+) | excluded | |
| | Togo (-) | | |
| | Trinidad and Tobago (+) | | |
| | Tunisia (+) | excluded | |
| Total: 13.49% | | 1.46% | 7.29% |
| 59,430 | | 6,419 | 32,116 |

+ No statistical information available.

Part B, Table I

| (iii) Technological Field | | Country or Regional Office | (iv) Technological Field | | |
|------------------------------|---|--|-----------------------------|---|---------------------------------|
| | | | Fertilizers, etc. (a) | Methods of Agriculture or Horticulture (b) | Agricultural Machines (c) |
| Food Products (a) | Processes for Manufacture of Food (b) | % | % | % | % |
| 0.64 | 2.98 | Soviet Union (74,590) | 0.20 | | |
| 0.63 | 0.91 | United States of America (71,661) | 0.10 | | |
| 1.26 | 0.96 | Japan (50,100) | 0.13 | | |
| 0.91 | 1.48 | Italy (37,494)* | 0.08 | | |
| 0.75 | 2.19 | France (24,195) | 0.05 | | |
| 0.56 | 0.90 | United Kingdom (20,880) | 0.04 | | |
| 0.43 | 1.20 | Germany (Federal Republic of) (19,500) | 0.12 | | |
| excluded | 1.02 | Canada (18,697) | 0.10 | | |
| | 0.96 | European Patent Convention (EPC) (15,117) | 0.20 | | |
| excluded | 0.74 | German Democratic Republic (12,705) | 0.22 | | |
| | 1.42 | Spain (9,115) | 0.11 | | |
| excluded | 1.10 | Czechoslovakia (7,496) | 0.33 | | |
| excluded | 1.69 | Australia (6,988) | 0.05 | | |
| | | South Africa (6,768) | | | |
| | 0.78 | Switzerland (6,421)** | 0.14 | | |
| | 1.18 | Sweden (5,681) | 0.07 | | |
| excluded | 0.92 | Poland (4,467) | 0.27 | | |
| excluded | 0.45 | Brazil (3,934) | 0.29 | | |
| | | Greece (3,225) | | | |
| excluded | 1.16 | Romania (2,786) | 0.07 | | |
| | 0.69 | Austria (2,571) | 0.54 | | |
| excluded | 2.28 | Republic of Korea (2,268) | 0.20 | | |

* Includes the Holy See and San Marino.

** Includes Liechtenstein.

Part B, Table II

| (iii) Technological Field | | Country or Regional Office | (iv) Technological Field | | |
|------------------------------|---|----------------------------|-----------------------------|---|---------------------------------|
| Food Products (a) | Processes for Manufacture of Food (b) | | Fertilizers, etc. (a) | Methods of Agriculture or Horticulture (b) | Agricultural Machines (C) |
| % | % | % | % | % | % |
| excluded | 1.20 | Norway (2,165) | 0.14 | | |
| excluded | 1.48 | Finland (2,161) | 0.23 | | |
| | 1.61 | Netherlands (2,145) | 0.09 | | |
| excluded | 0.49 | Hungary (2,095) | 0 | | |
| | 1.32 | Belgium (1,976) | 0.19 | | |
| excluded | 1.25 | Bulgaria (1,850) | 0.27 | | |
| excluded | 0.99 | India (1,814) | 0.31 | excluded | |
| excluded | 2.08 | New Zealand (1,732) | 0.08 | | |
| | 0.86 | Argentina (1,677) | 0.12 | | |
| | 1.12 | Israel (1,636) | 0 | | |
| excluded | 2.29 | Mexico (1,374) | excluded | 0 | |
| | 2.04 | Philippines (1,281) | 0.47 | | |
| | | Malaysia (1,150) | | | |
| excluded | 1.99 | Denmark (1,054) | 0 | | |
| excluded | 0.83 | Yugoslavia (1,053) | excluded | | |
| | 2.77 | Ireland (1,042) | 0 | | |
| excluded | 1.59 | Portugal (960) | 0.12 | | |
| | 0.24 | Luxembourg (418) | 0.48 | | |
| | 1.09 | Turkey (385) | 0.82 | | |
| excluded | | Venezuela (351) | | | |
| | | Iran (339) | | | |

Part B, Table III

| (iii) Technological Field | | Country or Regional Office | (iv) Technological Field | | |
|------------------------------|---|-------------------------------------|-----------------------------|---|---------------------------------|
| | | | Fertilizers, etc. (a) | Methods of Agriculture or Horticulture (b) | Agricultural Machines (c) |
| Food Products (a) | Processes for Manufacture of Food (b) | % | % | % | % |
| | | Morocco (313) | | | |
| excluded | 1.09 | 0.68 | Egypt (298) | 1.01 | |
| | | OAPI (298) | | | |
| excluded | 1.14 | excluded 0 | Zimbabwe (212) | 0 | |
| | | Uruguay (196) | | | |
| excluded | | excluded *** | Colombia (169) | | |
| excluded | | | Cuba (149) | | |
| excluded | | | Peru (148) | | |
| | | Sri Lanka (112) | | | |
| | | Iraq (103) | | | |
| 3.61 | 1.20 | Kenya (98) | 0 | | |
| | | Zaire (93) | | | |
| excluded | | Ecuador (92) | | | |
| excluded | 0 | excluded 0 | Zambia (74) | 0 | |
| | | Bahamas (66) | | | |
| 0 | 3.03 | Monaco (66) | 0 | | |
| excluded | | Bolivia (62) | | | |
| excluded | | Thailand (45) | | | excluded |
| excluded | 0 | 5.56 | China (44) | 0 | |
| 0 | 0 | Cyprus (43) | 0 | | |
| excluded | 0 | excluded 0 | Malawi (43) | 0 | |
| | | United Republic of Tanzania (30) | | | |

*** Unless they are exploited in Colombia.

Part B, Table IV

| (iii) Technological Field | | Country or Regional Office | (iv) Technological Field | | |
|------------------------------|---|------------------------------|-----------------------------|---|---------------------------------|
| | | | Fertilizers, etc. (a) | Methods of Agriculture or Horticulture (b) | Agricultural Machines (c) |
| Food Products (a) | Processes for Manufacture of Food (b) | % | % | % | % |
| excluded | 0 | Mongolia (28) | 0 | | |
| | | Uganda (26) | | | |
| excluded | | Iceland (21) | | | |
| | | Malta (20) | | | |
| | | Barbados (15) | | | |
| excluded | 0 | Viet Nam (14) | 0 | | |
| | | Haiti (9) | | | |
| | | Burundi (7) | | | |
| | | Mauritius (4) | | | |
| | | ARIPO (1) | | | |
| | | Ghana (1) | | | |
| | | Rwanda (1) | | | |
| | | Sudan (1) | | | |
| | | Algeria (no patents granted) | | | |
| | | Benin (-) | | | |
| | | Burkina Faso (-) | | | |
| | | Cameroon (-) | | | |
| | | Central African Republic (-) | | | |
| | | Chad (-) | | | |
| | | Congo (-) | | | |
| | | Côte d'Ivoire (-) | | | |

Part B, Table V

| (iii) Technological Field | | Country or Regional Office | (iv) Technological Field | | |
|------------------------------|---|--|-----------------------------|---|---------------------------------|
| | | | Fertilizers, etc. (a) | Methods of Agriculture or Horticulture (b) | Agricultural Machines (c) |
| Food Products (a) | Processes for Manufacture of Food (b) | % | % | % | % |
| | | Democratic People's Republic of Korea (+) | | | |
| | | Dominican Republic (+) | | | |
| | | Gabon (-) | | | |
| | | Guinea (+) | | | |
| | | Indonesia (no patents granted) | | | |
| | | Jordan (+) | | | |
| | | Lebanon (+) | | | |
| excluded | | Libya (+) | | | |
| | | Madagascar (+) | | | |
| | | Mali (-) | | | |
| | | Mauritania (-) | | | |
| | | Niger (-) | | | |
| | | Nigeria (+) | | | |
| | | Pakistan (+) | | | |
| | | Senegal (-) | | | |
| | | Suriname (+) | | | |
| | | Syria (+) | | | |
| | | Togo (-) | | | |
| | | Trinidad and Tobago (+) | | | |
| | | Tunisia (+) | | | |
| Total: | 0.89% | 1.54% | | 0.14% | |
| | 3,928 | 6,785 | | 601 | |

+ No statistical information available.

Part C, Table I

| (v) Technological Field | | (vi) Technological Field | | Country or Regional Office | (vii) Technological Field | | (viii) Technological Field | |
|---------------------------------|--|-----------------------------|------|--|------------------------------|------|---|------|
| (a) Micro- organisms % | (b) Substances Obtained by Micro- biological Processes % | Plant Varieties % | | | Animal Varieties % | | Essentially Biological Processes for Production of (vi) and (vii). Except Microbio- logical Processes or Products Thereof % | |
| 0.24 | 0.05 | excluded | 0.05 | Soviet Union (74,590) | excluded | 0.07 | | 0.03 |
| 0.18 | 0.17 | | 0 | United States of America (71,661) | | 0 | | 0.02 |
| 0.42 | 0.27 | | 0 | Japan (50,100) | | 0 | | 0.01 |
| 0.13 | 0.13 | | 0.01 | Italy (37,494)* | excluded | 0 | excluded | 0.01 |
| 0.44 | 0.28 | excluded | 0.01 | France (24,195) | excluded | 0.01 | excluded | 0.02 |
| 0.32 | 0.11 | excluded | 0 | United Kingdom (20,880) | excluded | 0 | excluded | 0.02 |
| 0.25 | 0.08 | excluded | 0 | Germany (Federal Republic of) (19,500) | excluded | 0 | excluded | 0.04 |
| 0.65 | 0.42 | | 0.01 | Canada (18,697) | excluded | 0 | excluded | 0.03 |
| 0.34 | 0.32 | excluded | 0 | European Patent Convention (EPC) (15,117) | excluded | 0 | excluded | 0.03 |
| excl. 0.82 | excl. 0.30 | excluded | 0.02 | German Democratic Republic (12,705) | excluded | 0 | excluded | 0.07 |
| excl. 1.03 | excl. 1.12 | excluded | 0.12 | Spain (9,115) | excluded | 0 | excluded | 0.04 |
| excl. 0.73 | excl. 0.47 | | 0.03 | Czechoslovakia (7,496) | | 0 | | 0.08 |
| 0.31 | 0.15 | | 0.05 | Australia (6,988) | | 0 | | 0.04 |
| | | excluded | | South Africa (6,768) | excluded | | excluded | |
| 0.36 | 0.84 | excluded | 0 | Switzerland (6,421)** | excluded | 0 | excluded | 0.02 |
| 0.19 | 0.37 | excluded | 0 | Sweden (5,681) | excluded | 0 | excluded | 0.04 |
| 0.39 | 0.41 | excluded | 0 | Poland (4,467) | excluded | 0.02 | excluded | 0 |
| excl. 0.41 | excl. 0.34 | excluded | 0.08 | Brazil (3,934) | excluded | 0 | excluded | 0 |
| | | | | Greece (3,225) | | | | |
| excl. 0.62 | excl. 0.22 | excluded | 1.43 | Romania (2,786) | excluded | 0 | | 0.04 |
| 0.12 | 0.12 | excluded | 0 | Austria (2,571) | excluded | 0 | excluded | 0 |

* Includes the Holy See and San Marino.

** Includes Liechtenstein.

Part C, Table II

| (v) Technological Field | | (vi) Technological Field | | Country or Regional Office | (vii) Technological Field | | (viii) Technological Field | |
|---------------------------------|--|-----------------------------|---------------------------|----------------------------|------------------------------|------|---|------|
| (a) Micro- organisms % | (b) Substances Obtained by Micro- biological Processes % | Plant Varieties % | | | Animal Varieties % | | Essentially Biological Processes for Production of (vi) and (vii), Except Microbio- logical Processes or Products Thereof % | |
| 0.15 | 0.66 | 0.05 | Republic of Korea (2,268) | | 0 | | 0 | |
| 0.28 | 0.28 | excluded | 0 Norway (2,165) | | excluded | 0 | excluded | 0.05 |
| 0.18 | 0.55 | excluded | 0 Finland (2,161) | | excluded | 0 | excluded | 0.05 |
| 0.55 | 0.51 | excluded | 0 Netherlands (2,145) | | excluded | 0 | excluded | 0.05 |
| excl. 0.38 | 0.82 | 0.14 | Hungary (2,095) | | 0 | | 0.05 | |
| 0.83 | 0.38 | excluded | 0 Belgium (1,976) | | excluded | 0 | excluded | 0.04 |
| 1.36 | 0.65 | excluded | 2.66 Bulgaria (1,850) | | excluded | 0.22 | | 0 |
| 0 | 0 | 0 | India (1,814) | | | 0 | | 0.10 |
| 0.64 | 0.26 | 0.04 | New Zealand (1,732) | | | 0 | | 0.04 |
| 0 | 0.25 | 0 | Argentina (1,677) | | | 0 | | 0 |
| 1.89 | 0.35 | excluded | 0 Israel (1,636) | | excluded | 0 | excluded | 0.06 |
| 0.76 | 0.69 | excluded | 0 Mexico (1,374) | | excluded | 0 | excluded | 0 |
| 0 | 0.08 | 0 | Philippines (1,281) | | | 0 | | 0.31 |
| excluded | excluded | excluded | Malaysia (1,150) | | excluded | | excluded | |
| 1.23 | 0.85 | excluded | 0 Denmark (1,054) | | excluded | 0 | excluded | 0 |
| excl. 0 | excl. 0 | excluded | 0 Yugoslavia (1,053) | | excluded | 0 | excluded | 0 |
| 0.76 | 0.55 | 0 | Ireland (1,042) | | | 0 | | 0.07 |
| 0.73 | 1.47 | excluded | 0 Portugal (960) | | excluded | 0 | excluded | 0 |
| 0.48 | 0.24 | excluded | 0 Luxembourg (418) | | excluded | 0 | excluded | 0 |
| 0 | 0 | 0.54 | Turkey (385) | | | 0 | | 0 |
| | | | Venezuela (351) | | | | | |
| 0 | | | Iran (339) | | | | | |

Part C, Table III

| (v) Technological Field | | (vi) Technological Field | Country or Regional Office | (vii) Technological Field | (viii) Technological Field |
|---------------------------------|--|-----------------------------|----------------------------------|------------------------------|---|
| (a) Micro- organisms % | (b) Substances Obtained by Micro- biological Processes % | Plant Varieties % | | Animal Varieties % | Essentially Biological Processes for Production of (vi) and (vii), Except Microbio- logical Processes or Products Thereof % |
| | | Morocco (313) | | | |
| 0 | 0.68 | 0 | Egypt (298) | 0 | 0 |
| | | excluded | OAPI (298) | excluded | excluded |
| 0 | 0 | 0 | Zimbabwe (212) | 0 | 0 |
| | | Uruguay (196) | | | |
| | | excluded | Colombia (169) | excluded | excluded |
| excluded | | excluded | Cuba (149) | excluded | excluded |
| | | excluded | Peru (148) | excluded | excluded |
| | | excluded | Sri Lanka (112) | excluded | excluded |
| | | Iraq (103) | | | |
| 1.20 | 0 | excluded | Kenya (98) | excluded | 0 |
| | | Zaire (93) | | | |
| | | excluded | Ecuador (92) | excluded | excluded |
| 0 | 0 | 0 | Zambia (74) | 0 | 0 |
| | | excluded | Bahamas (66) | excluded | excluded |
| 0 | 0 | 0 | Monaco (66) | 0 | 0 |
| | | Bolivia (62) | | | |
| | | excluded | Thailand (45) | excluded | excluded |
| 0 | 0 | excluded | China (44) | excluded | 1.85 |
| 0 | 0 | excluded | Cyprus (43) | excluded | 0 |
| 0 | 0 | 0 | Malawi (43) | 0 | 2.70 |
| | | excluded | United Republic of Tanzania (30) | excluded | excluded |

Part C, Table IV

| (v) Technological Field | | (vi) Technological Field | | Country or Regional Office | (vii) Technological Field | | (viii) Technological Field | |
|---------------------------------|--|-----------------------------|------------------------------|----------------------------|------------------------------|---|-------------------------------|--|
| (a) Micro- organisms % | (b) Substances Obtained by Micro- biological Processes % | Plant Varieties % | | | Animal Varieties % | Essentially Biological Processes for Production of (vi) and (vii), Except Microbio- logical Processes or Products Thereof % | | |
| 0 | 0 | 0 | Mongolia (28) | | 0 | excluded | 0 | |
| | | excluded | Uganda (26) | | excluded | excluded | | |
| | | | Iceland (21) | | | | | |
| | | | Malta (20) | | | | | |
| | | excluded | Barbados (15) | | excluded | excluded | | |
| 0 | 0 | 22.22 | Viet Nam (14) | | 0 | 0 | | |
| | | | Haiti (9) | | | | | |
| | | | Burundi (7) | | | | | |
| | | | Mauritius (4) | | | | | |
| | | | ARIPO (1) | | | | | |
| | | excluded | Ghana (1) | | excluded | excluded | | |
| | | | Rwanda (1) | | | | | |
| | | | Sudan (1) | | | | | |
| | | excluded | Algeria (no patents granted) | | excluded | excluded | | |
| | | | Benin (-) | | | | | |
| | | | Burkina Faso (-) | | | | | |
| | | | Cameroon (-) | | | | | |
| | | | Central African Republic (-) | | | | | |
| | | | Chad (-) | | | | | |
| | | | Congo (-) | | | | | |
| | | | Côte d'Ivoire (-) | | | | | |

Part C, Table V

| (v) Technological Field | | (vi) Technological Field | | Country or Regional Office | (vii) Technological Field | (viii) Technological Field |
|---------------------------------|--|-----------------------------|--|----------------------------|------------------------------|---|
| (a) Micro- organisms % | (b) Substances Obtained by Micro- biological Processes % | Plant Varieties % | | | Animal Varieties % | Essentially Biological Processes for Production of (vi) and (vii), Except Microbio- logical Processes or Products Thereof % |
| | | | Democratic People's Republic of Korea (+) | | | |
| | | | Dominican Republic (+) | | | |
| | | | Gabon (-) | | | |
| | | | Guinea (+) | | | |
| | | | Indonesia (no patents granted) | | | |
| | | | Jordan (+) | | | |
| | | | Lebanon (+) | | | |
| | | | Libya (+) | | | |
| | | | Madagascar (+) | | | |
| | | | Mali (-) | | | |
| | | | Mauritania (-) | | | |
| | | | Niger (-) | | | |
| | | excluded | Nigeria (+) | excluded | excluded | |
| | | | Pakistan (+) | | | |
| | | | Senegal (-) | | | |
| | | | Suriname (+) | | | |
| | | | Syria (+) | | | |
| | | | Togo (-) | | | |
| | | | Trinidad and Tobago (+) | | | |
| | | | Tunisia (+) | | | |
| Total: 0.36% | 0.24% | 0.04% | | | 0.01% | 0.03% |
| 1,593 | 1,079 | 160 | | | 48 | 115 |

+ No statistical information available.

Part D, Table I

| (ix) Technological Field | (x) Technological Field | (xi) Technological Field | Country or Regional Office | (xii) Technological Field | (xiii) Technological Field | (xiv) Technological Field |
|--------------------------------|---|--|--|---|----------------------------------|--|
| Cosmetics % | Mixture of Metals and Alloys % | Anticontaminant Apparatus, Equipment and Processes % | | Atomic Energy and Nuclear- Related Inven- tions % | Computer Programs | Methods for Treatment of Human/ Animal Body |
| 0.04 | 0.40 | 4.13 | Soviet Union (74,590) | 0.10 | | excluded |
| 0.24 | 0.21 | 6.08 | United States of America (71,661) | excl. 0.32 | | |
| 0.32 | 1.07 | 10.46 | Japan (50,100) | excl. 0.73 | excluded | excluded |
| 0 | 0.28 | 4.32 | Italy (37,494)* | 0.47 | excluded | excluded |
| 0.27 | 0.45 | 7.43 | France (24,195) | 0.73 | excluded | excluded |
| 0.31 | 0.44 | 4.71 | United Kingdom (20,880) | 0.32 | excluded | excluded |
| 0.16 | 0.48 | 6.63 | Germany (Federal Republic of) (19,500) | 0.64 | excluded | excluded |
| 0.50 | 0.41 | 7.44 | Canada (18,697) | 0.44 | excluded | excluded |
| 0.26 | 0.30 | 12.03 | European Patent Convention (EPC) (15,117) | 1.02 | excluded | excluded |
| 0.07 | 0.22 | 8.03 | German Democratic Republic (12,705) | excl. 0.32 | excluded | excluded |
| 0.56 | 0.29 | 9.35 | Spain (9,115) | 0.75 | excluded | excluded |
| 0.08 | 0.30 | 7.54 | Czechoslovakia (7,496) | excl. 0.47 | | |
| 0.50 | 0.26 | 12.50 | Australia (6,988) | 0.01 | excluded | |
| | | | South Africa (6,768) | | excluded | excluded |
| 1.09 | 0.42 | 7.61 | Switzerland (6,421)** | 0.42 | excluded | excluded |
| 0.18 | 0.48 | 5.56 | Sweden (5,681) | 0.60 | excluded | excluded |
| 0.17 | 0.70 | 10.39 | Poland (4,467) | excl. 0.17 | excluded | excluded |
| 0.36 | 0.58 | 9.21 | Brazil (3,934) | excl. 0.55 | excluded | excluded |
| | | | Greece (3,225) | | | |
| 1.47 | 0.53 | 8.50 | Romania (2,786) | excl. 0.04 | | excluded |
| 0.58 | 0.31 | 7.09 | Austria (2,571) | 0.46 | excluded | excluded |

* Includes the Holy See and San Marino.

** Includes Liechtenstein.

Part D, Table II

| | <i>(ix) Technological Field</i> | <i>(x) Technological Field</i> | <i>(xi) Technological Field</i> | <i>Country or Regional Office</i> | <i>(xii) Technological Field</i> | <i>(xiii) Technological Field</i> | <i>(xiv) Technological Field</i> |
|-------|---|--|--|-----------------------------------|---|---|---|
| | <i>Cosmetics</i> % | <i>Mixture of Metals and Alloys</i> % | <i>Anticontaminant Apparatus, Equipment and Processes</i> % | | <i>Atomic Energy and Nuclear- Related Inven- tions</i> % | <i>Computer Programs</i> % | <i>Methods for Treatment of Human/ Animal Body</i> % |
| excl. | 0.25 | 0.76 | 8.26 | Republic of Korea (2,268) | excl. 0.56 | | |
| | 0.46 | 0.23 | 11.40 | Norway (2,165) | 0.05 | excluded | excluded |
| | 0.23 | 0.37 | 15.06 | Finland (2,161) | 0.42 | excluded | excluded |
| | 0.87 | 0.37 | 12.44 | Netherlands (2,145) | 0.37 | | excluded |
| | 0.34 | 0.10 | 7.32 | Hungary (2,095) | 0.19 | excluded | excluded |
| | 0 | 0.15 | 7.30 | Belgium (1,976) | 2.18 | excluded | excluded |
| excl. | 0.27 | 0.43 | 8.02 | Bulgaria (1,850) | excl. 0.16 | | excluded |
| | 0.26 | 0.68 | 5.90 | India (1,814) | excl. 0 | | excluded |
| | 1.13 | 0.23 | 7.93 | New Zealand (1,732) | 0.04 | | |
| | 0.86 | 0.25 | 12.89 | Argentina (1,677) | 0 | | |
| | 0.18 | 0.06 | 4.65 | Israel (1,636) | 0.71 | excluded | excluded |
| | 0.28 excl. 0.35 | | 7.07 | Mexico (1,374) | excl. 0.90 | excluded | excluded |
| | 2.27 | 0.78 | 5.95 | Philippines (1,281) | 0.31 | | |
| | | | | Malaysia (1,150) | | | excluded |
| | 0.47 | 0.09 | 5.44 | Denmark (1,054) | 0 | excluded | excluded |
| | 0 excl. 0.12 | excl. | 6.00 | Yugoslavia (1,053) | excl. 0.48 | excluded | excluded |
| | 0.62 | 0.07 | 7.70 | Ireland (1,042) | 0.07 | | |
| | 1.22 | 0.12 | 7.63 | Portugal (960) | 0.12 | excluded | |
| | 0 | 0.24 | 10.40 | Luxembourg (418) | 0.24 | | |
| | 0 | 1.63 | 9.33 | Turkey (385) | 0.82 | | |
| | | | | Venezuela (351) | | | |
| | | | | Iran (339) | | | |

Part D, Table III

| <i>(ix) Technological Field</i> | <i>(x) Technological Field</i> | <i>(xi) Technological Field</i> | <i>Country or Regional Office</i> | <i>(xii) Technological Field</i> | <i>(xiii) Technological Field</i> | <i>(xiv) Technological Field</i> |
|---|---|---|-------------------------------------|--|---|--|
| <i>Cosmetics %</i> | <i>Mixture of Metals and Alloys %</i> | <i>Anticontaminant Apparatus, Equipment and Processes %</i> | | <i>Atomic Energy and Nuclear- Related Inven- tions %</i> | <i>Computer Programs</i> | <i>Methods for Treatment of Human/ Animal Body</i> |
| | | | Morocco (313) | | | |
| 0.34 | 0.34 | 10.83 | Egypt (298) | 0.34 | | |
| | | | OAPI (298) | | excluded | excluded |
| 0 | 1.71 | 0 | Zimbabwe (212) | 0 | | |
| | | | Uruguay (196) | | | |
| | | | Colombia (169) | | | excluded |
| | | | Cuba (149) | excluded | | excluded |
| | | | Peru (148) | | | excluded |
| | | | Sri Lanka (112) | | | excluded |
| | | | Iraq (103) | | | |
| 0 | 0 | 10.40 | Kenya (98) | 0 | excluded | excluded |
| | | | Zaire (93) | | | |
| | | | Ecuador (92) | | | excluded |
| 0 | 0 | 8.00 | Zambia (74) | 0 | | |
| | | | Bahamas (66) | | | |
| 0 | 0 | 19.61 | Monaco (66) | 0 | | |
| | | | Bolivia (62) | | | |
| | | | Thailand (45) | | excluded | |
| 0 | 0 | 7.89 | China (44) | excl. 3.70 | | excluded |
| 0 | 0 | 2.14 | Cyprus (43) | 0 | excluded | excluded |
| 0 | 0 | 8.69 | Malawi (43) | 0 | | |
| | | | United Republic of Tanzania (30) | | excluded | excluded |

Part D, Table IV

| (ix) Technological Field | (x) Technological Field | (xi) Technological Field | Country or Regional Office | (xii) Technological Field | (xiii) Technological Field | (xiv) Technological Field |
|--------------------------------|------------------------------------|---|------------------------------|--|----------------------------------|--|
| Cosmetics | Mixture of Metals and Alloys | Anticontaminant Apparatus, Equipment and Processes | | Atomic Energy and Nuclear- Related Inven- tions | Computer Programs | Methods for Treatment of Human/ Animal Body |
| a_0 | a_0 | $\%$ | % | % | | |
| 0 | 0 | 10.00 | Mongolia (28) | 0 | | excluded |
| | | | Uganda (26) | | excluded | excluded |
| | | | Iceland (21) | | | |
| | | | Malta (20) | | | |
| | | | Barbados (15) | | | excluded |
| 0 | 0 | 0 | Viet Nam (14) | 0 | | excluded |
| | | | Haiti (9) | | | |
| | | | Burundi (7) | | | |
| | | | Mauritius (4) | | | |
| | | | ARIPO (1) | | | |
| | | | Ghana (1) | | excluded | excluded |
| | | | Rwanda (1) | | | |
| | | | Sudan (1) | | | |
| | | | Algeria (no patents granted) | | | |
| | | | Benin (-) | | | |
| | | | Burkina Faso (-) | | | |
| | | | Cameroon (-) | | | |
| | | | Central African Republic (-) | | | |
| | | | Chad (-) | | | |
| | | | Congo (-) | | | |
| | | | Côte d'Ivoire (-) | | | |

Part D, Table V

| <i>(ix) Technological Field</i> | <i>(x) Technological Field</i> | <i>(xi) Technological Field</i> | <i>Country or Regional Office</i> | <i>(xii) Technological Field</i> | <i>(xiii) Technological Field</i> | <i>(xiv) Technological Field</i> |
|---------------------------------|-------------------------------------|---|---|---|-----------------------------------|---|
| <i>Cosmetics</i> | <i>Mixture of Metals and Alloys</i> | <i>Anticontaminant Apparatus, Equipment and Processes</i> | | <i>Atomic Energy and Nuclear-Related Inventions</i> | <i>Computer Programs</i> | <i>Methods for Treatment of Human/Animal Body</i> |
| 0 ₀ | 0 ₀ | 0 ₀ | Democratic People's Republic of Korea (+) | | | |
| | | | Dominican Republic (+) | | | |
| | | | Gabon (-) | | | |
| | | | Guinea (+) | | | |
| | | | Indonesia (no patents granted) | | | |
| | | | Jordan (+) | | | |
| | | | Lebanon (+) | | | |
| | | | Libya (+) | | | |
| | | | Madagascar (+) | | | |
| | | | Mali (-) | | | |
| | | | Mauritania (-) | | | |
| | | | Niger (-) | | | |
| | | | Nigeria (+) | | | |
| | | | Pakistan (+) | | | |
| | | | Senegal (-) | | | |
| | | | Suriname (+) | | | |
| | | | Syria (+) | | | |
| | | | Togo (-) | | | |
| | | | Trinidad and Tobago (+) | | | |
| | | | Tunisia (+) | | | |
| Total: 0.25% | 0.45% | 7.70% | | 0.46% | | |
| 1,111 | 1,965 | 33,922 | | 2,016 | | |

+ No statistical information available.

**III. DURATION OF PATENTS; MAINTENANCE FEES;
PROVISIONAL PROTECTION OF APPLICANT;
PRIOR USERS' RIGHTS**
(HL/CE/IV/INF/2)

Memorandum of the International Bureau

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ANNEX I: Table Concerning Provisional Protection of Applicant

ANNEX II: Table Concerning Prior Users' Rights

Introduction

1. The present memorandum deals with four questions, namely, (i) the maximum possible duration of patent protection, (ii) the fees to be paid in a number of countries for the maintenance of a patent, (iii) provisional protection of the applicant before the effects of the patent begin and (iv) rights concerning the use of the patented invention by others than the owner of the patent, based on use and similar acts before the filing date or the priority date. Those four questions are linked to each other because they all concern rights (provisional protection; duration of patent) of the applicant or the owner of the patent and conditions or limitations of such rights (maintenance fees; rights of prior users). Each question is examined in a separate part of the present memorandum.

Part One: Maximum Possible Duration of Patents

2. The expression "maximum possible" duration is used to underline that the actual length of the validity of a patent depends, particularly, on the extent to which the possibilities of maintenance of the patent and, in certain countries, the maintenance of the application and of the patent, are made use of by the applicant or the patent owner.

3. The present Part contains an analysis of the provisions concerning the maximum possible duration of patent protection of the laws of the 97 countries party to the Paris Convention for the Protection of Industrial Property (hereinafter referred to as "the Paris Convention") for which pertinent information is available at the International Bureau,* of the laws of nine other countries (Bolivia, Colombia, Ecuador, India, Malaysia, Pakistan, Peru, Thailand and Venezuela) and of three regional patent conventions, namely, the Protocol of the African Regional Industrial Property Organization (ARIPO), the European Patent Convention (EPC) and the Agreement Relating to the Creation of an Intellectual Property

Organization (Bangui Act) within the framework of the African Intellectual Property Organization (OAPI).

4. The following is a summary of the maximum duration of patents and the event from which such duration is counted.

(a) Duration, *counted from the filing date of the application:*

- (i) *20 years:* Algeria; Belgium; Burundi; Chad; Denmark; Finland; France; Hungary; Israel; Italy;¹ Monaco; Morocco; Netherlands; Nigeria; Norway; Rwanda; South Africa; Spain; Sudan; Sweden; Switzerland;² United Kingdom; Zaire (except for medicine inventions for which the duration is 15 years from the filing date of the application); Zimbabwe; European Patent Convention;
- (ii) *16 years:* Bahamas; Jordan;
- (iii) *15 years:* Brazil; Barbados;³ Bulgaria; China; Czechoslovakia; Democratic People's Republic of Korea; Egypt;³ Iraq; Lebanon; Libya;³ Mongolia; Poland; Romania; Soviet Union; Syria; Thailand; Viet Nam;
- (iv) *14 years:* Malta;⁴ Mauritius;⁵
- (v) *10 years:* OAPI;⁶ Cuba;⁷
- (vi) *5, 10, 15 or 20 years:* Iran;⁸ Tunisia;⁸
- (vii) *5, 10 or 15 years:* Turkey.⁹

(b) Duration, *counted from the date following the filing date of the application:*

- (i) *20 years:* Germany (Federal Republic of); Luxembourg;
- (ii) *18 years:* German Democratic Republic;
- (iii) *15 years:* Greece.

(c) Duration, *counted from the publication date of the examined application (e.g., for opposition):*

- (i) *18 years:* Austria, but not beyond 20 years from the filing date of the application;

¹ The Italian law also applies to the Holy See and San Marino.

² The Swiss law also applies to Liechtenstein.

³ With the possibility of a five-year extension. In Barbados, an extension is granted if the patent owner proves that the invention is being sufficiently used in the country at the date of the request or that there are circumstances that justify the failure to use the invention sufficiently in the country. In Egypt and Libya, an extension is granted if the invention is of particular importance and if the patent owner proves that he has not secured an adequate return for his efforts and expense.

⁴ With the possibility of an extension for a period apparently not indicated in the law, on the grounds that the patent owner has not been adequately remunerated by the patent.

⁵ With the possibility of up to a 14-year extension, on grounds apparently not indicated in the law.

⁶ With the possibility of a five-year extension for Benin, Burkina Faso, Cameroon, the Central African Republic, Congo, Côte d'Ivoire, Gabon, Mali, Mauritania, Niger, Senegal and Togo if the petitioner proves that the patented invention is being worked on the territory of one of the member States at the date of the request or that there are legitimate reasons for failing to work it. Chad is a member of OAPI but is party to the Libreville Agreement which provides for a term of 20 years from filing without extension.

⁷ With the possibility of a five-year extension, the law apparently not indicating the grounds therefor.

⁸ Depending on the applicant's request.

⁹ The law does not appear to indicate on what the actual duration depends.

* Information is not available for Guinea and Suriname. Indonesia and Madagascar are not mentioned because in those countries provisions on the grant of patents do not exist.

- (ii) *15 years:* Japan, but not beyond 20 years from the filing date of the application;
- (iii) *12 years:* Republic of Korea, but not beyond 15 years from the filing date of the application.¹⁰

(d) Duration, counted from the publication date of the unexamined application:

7 years: Yugoslavia (publication occurs 18 months after the filing or priority date, unless the applicant requests an earlier publication, in which case, it would seem that duration is to be counted from such earlier publication date).¹¹

(e) Duration, counted from the date "the complete specification is lodged":

16 years: Australia;¹² Ireland;¹³ Malawi;¹⁴ New Zealand;¹³ Zambia.¹³

(f) Duration, counted from the date of grant of the patent:

- (i) *17 years:* Canada; Philippines; United States of America;¹⁵
- (ii) *16 years:* Bangladesh;¹⁶ Pakistan;¹⁶
- (iii) *15 years:* Bolivia; Iceland; Malaysia; Portugal; Sri Lanka; Uruguay;
- (iv) *14 years:* India (except for process inventions for manufacturing food or medicine, for which the duration is five years from the date of sealing of the patent, or seven years from the date of the patent (i.e. the date on which the complete specification was filed), whichever period is shorter); Mexico; Trinidad and Tobago;

¹⁰ In cases where the application is not published (e.g., secret patents), the duration is 12 years from the date of grant of the patent.

¹¹ With the possibility of a seven-year extension if the patented invention is actually and seriously worked in the country.

¹² With the possibility of an extension, on grounds that the patent owner has been inadequately remunerated by the patent (in which case, the extension may be for a further five-year term, or, in exceptional cases, for 10 years) or on grounds of war loss (in which case, the extension is for such further term as the court thinks fit).

¹³ With the possibility of a five-year or a 10-year extension. In Ireland, an extension is possible if the patent owner proves that he has not been sufficiently remunerated by the patent, and, in extending the term of the patent, due regard is taken of the merits of the invention. In New Zealand, an extension is possible if the patent owner proves that he has not been adequately remunerated by the patent or if, by reason of hostilities with any foreign State, he has suffered a loss or damage. In Zambia, an extension is possible if the patent owner proves that by reason of hostility with any foreign State he has suffered loss and damage or he has not derived an adequate remuneration from the patent.

¹⁴ With the possibility of an extension of five or 10 years or for the term of the hostilities between Malawi and any foreign State, if the patent owner has not obtained an adequate remuneration from the patent or if he has suffered a loss or damage because of the hostilities.

¹⁵ With the possibility of an extension for certain patented inventions subjected to regulatory review before their commercial marketing or use, in which case the duration may be extended for a specified period of time (under normal circumstances, a time equal to the regulatory review period which occurs after the patent is issued, provided that the period remaining in the term of the patent after the date of regulatory approval, when added to the regulatory review period, does not exceed 14 years). The possibility of such an extension usually applies to inventions related to a drug, food or cosmetics.

¹⁶ With the possibility of a five-year or a 10-year extension if the patent owner proves that the patent has not been sufficiently remunerative.

- (v) *5, 10 or 20 years:* Haiti (the law does not appear to indicate on what the actual duration depends);
- (vi) *5, 10 or 15 years:* Argentina, depending on the invention's merits and the wishes of the applicant (the decision is made by the National Directorate of Industrial Property); Dominican Republic;
- (vii) *5 or 10 years:* Venezuela, depending on the will of the applicant;
- (viii) *5 years:* Colombia;¹⁷ Ecuador;¹⁷ Peru.¹⁷

(g) Duration, expiring on the same date as the corresponding patent in the United Kingdom:

Cyprus; Ghana; Kenya; Uganda; United Republic of Tanzania.

Part Two: Maintenance Fees

5. Under most patent laws, in order for a patent application and/or a granted patent to be maintained in effect, the patent owner must pay maintenance fees therefor; otherwise the application or patent, as the case may be, is terminated. Only a few countries do not expressly provide for the payment of maintenance fees. Generally, the principal reasons for providing for maintenance fees are to obtain revenues for the industrial property office and to discourage the maintenance of patents for inventions which are not used or useful.

6. The present Part contains an analysis of the various systems for the payment of maintenance fees under the laws of the 97 countries party to the Paris Convention for which pertinent information is available at the International Bureau,* under the laws of nine other countries (Bolivia, Colombia, Ecuador, India, Malaysia, Pakistan, Peru, Thailand, Venezuela) and under three regional patent conventions, namely, the Protocol of the African Regional Industrial Property Organization (ARIPO), the European Patent Convention (EPC) and the Agreement Relating to the Creation of an Intellectual Property Organization (Bangui Act) within the framework of the African Intellectual Property Organization (OAPI).

7. The system for paying maintenance fees varies enormously from country to country. This study does not deal with the amount of fees but only with the schedule of payment. Even with respect to this aspect, great differences exist, especially as regards: (i) the date on which the first payment is due and the period for which such first payment is made; and (ii) the dates on which (and the regularity with which) subsequent payments are due.

8. As regards the date on which the first payment is due, in some countries maintenance fees must begin to be paid from the filing date of the application or a certain period thereafter (e.g., on the second anniversary of the filing date); in a few countries, they must begin to be paid a certain period after the filing date of the complete specification; in other countries, the first maintenance fee is payable upon the publication of the

¹⁷ With the possibility of a five-year extension if the patent is adequately worked.

* Information is not available for Guinea and Suriname. Indonesia and Madagascar are not mentioned because in those countries provisions on the grant of patents do not exist.

patent application for opposition; in some other countries, the first payment is due upon the grant of the patent or a certain period thereafter. In one country, it is paid on the basis of the calendar year.

9. The period covered by such first payment, in most countries, is one year, but in others it may be longer. In one country, it covers the entire period of protection.

10. As regards the dates for the payment of subsequent fees, in most countries subsequent maintenance fees are payable on the anniversary of the filing date, in some on the anniversary of the date of grant, in a few on the anniversary either of the filing of the complete specification or of publication of the application, and finally, in two countries, on the basis of the calendar year. The reference date for the payment of subsequent fees is frequently but not necessarily the same as for the payment of the first fee.

11. In the majority of countries, subsequent maintenance fees are payable every year (i.e., annually), while in a minority they are due at prescribed intervals of periods (regular or not) which are longer than one year.

12. The following countries do not expressly provide for the payment of maintenance fees: Argentina, Burundi, Canada, Colombia, Cyprus, Dominican Republic, Ecuador, Ghana, Haiti, Indonesia, Kenya, Libya, Mauritius, Peru, Rwanda, Trinidad and Tobago, Uganda, United Republic of Tanzania, Zaire.

13. The various approaches for the payment of maintenance fees among those countries that do provide for their payment and the three regional patent conventions are indicated below.

I. First Payment of Maintenance Fee

covers period to

(a) *due on the filing date of the application:*

| | |
|---------------------------------------|---------------------------|
| Belgium | 1st anniversary of filing |
| Bolivia | 1st January after grant |
| Democratic People's Republic of Korea | 1st anniversary of filing |
| France | 1st anniversary of filing |
| Iran (Islamic Republic of) | 1st anniversary of filing |
| Italy ¹⁸ | 3rd anniversary of filing |
| Lebanon | 1st anniversary of filing |
| Luxembourg | 1st anniversary of filing |
| Monaco | 1st anniversary of filing |
| Morocco | 1st anniversary of filing |
| Portugal | 1st anniversary of grant |
| Spain | 2nd anniversary of filing |
| Syria | 5th anniversary of filing |
| Tunisia | 1st anniversary of grant |
| Venezuela | 1st anniversary of grant |

| <i>covers period to</i> | |
|--|--|
| (b) <i>due on a prescribed anniversary of the filing date of the application, namely:</i> | |
| (i) on the <i>first</i> anniversary of the filing date: | |
| ARIPO | 2nd anniversary of filing |
| OAPI | 2nd anniversary of filing |
| Algeria | 2nd anniversary of filing |
| Cuba | 2nd anniversary of filing |
| German Democratic Republic | 2nd anniversary of filing |
| Iraq | 2nd anniversary of filing |
| South Africa | 2nd anniversary of filing |
| Sudan | 2nd anniversary of filing |
| (ii) on the <i>second</i> anniversary of the filing date of the application: | |
| EPC | 3rd anniversary of filing |
| China | 3rd anniversary of filing |
| Denmark | 3rd anniversary of filing |
| Egypt | 3rd anniversary of filing |
| Germany (Federal Republic of) | 3rd anniversary of filing |
| Netherlands | 3rd anniversary of filing |
| Norway | 3rd anniversary of filing |
| Sweden | 3rd anniversary of filing |
| Switzerland ¹⁹ | 3rd anniversary of filing |
| (iii) on the <i>third</i> anniversary of the filing date of the application: | |
| Brazil | 4th anniversary of filing |
| (iv) on the <i>fourth</i> anniversary of the filing date of the application: | |
| Bahamas | 5th anniversary of filing |
| Barbados | 5th anniversary of filing |
| Jordan | 8th anniversary of filing |
| Malta | 5th anniversary of filing |
| Pakistan | 5th anniversary of filing |
| Thailand | 5th anniversary of filing |
| United Kingdom ²⁰ | 5th anniversary of filing |
| (v) on the anniversary of the filing date which is the <i>first after grant</i> : | |
| Nigeria | 2nd anniversary of filing after grant |
| (c) <i>due on a prescribed anniversary of the filing date of the complete specification, namely:</i> | |
| (i) on the <i>first</i> anniversary of the filing date of the complete specification: | |
| [None] | |
| (ii) on the <i>second</i> anniversary of the filing date of the complete specification: | |
| Australia | 3rd anniversary of filing complete specification |

¹⁸ Any further fees due for each subsequent year from filing before grant are payable upon grant. The Italian Law also applies to the Holy See and San Marino.

¹⁹ The Swiss law also applies to Liechtenstein.
²⁰ The fee is actually due before the expiration of the fourth year, i.e., before the fourth anniversary from filing.

| | covers period to | | covers period to |
|---|--|--|---|
| India | 3rd anniversary of filing complete specification | (i) due within three months after the date of grant: | |
| Malawi | 3rd anniversary of filing complete specification | Israel | 6th anniversary of filing |
| (iii) on the <i>third</i> anniversary of the filing date of the complete specification: | | (j) due within six months after the date of grant: | |
| Zambia | 4th anniversary of filing complete specification | Czechoslovakia | 5th anniversary of grant see footnote concerning II(a)(vii), below |
| Zimbabwe | 4th anniversary of filing complete specification | Romania | |
| (iv) on the <i>fourth</i> anniversary of the filing date of the complete specification: | | (k) due on a prescribed anniversary of the date of grant, namely: | |
| Ireland | 5th anniversary of filing complete specification | (i) on the <i>first</i> anniversary of the date of grant: Greece | 2nd anniversary of grant |
| New Zealand | 7th anniversary of filing complete specification | (ii) on the <i>second</i> anniversary of the date of grant: Malaysia | 3rd anniversary of grant |
| (d) due on the date of the publication, for opposition purposes, of the application: | | Sri Lanka | 3rd anniversary of grant |
| Austria | 1st anniversary of publication | (iii) on the <i>third</i> anniversary of the date of grant: [None] | |
| Hungary | publication | (iv) on the <i>three and a half</i> years' anniversary of the date of grant: United States of America | 7½ anniversary of grant |
| Yugoslavia ²¹ | 7th anniversary of publication (expiration of patent) | (v) on the <i>fourth</i> anniversary of the date of grant: Philippines | 5th anniversary of grant |
| (e) due within 30 days from the date of transmittal of the decision to grant the patent: | 3rd anniversary of publication for opposition purposes ²² | | |
| Japan | | | |
| (f) due within three months from the date of transmittal of the decision to grant the patent: | | | |
| Poland | 5th anniversary of filing | | |
| Republic of Korea | 3rd anniversary of publication for opposition purposes ²² | | |
| Viet Nam | 1st anniversary of grant | | |
| (g) due on the date of transmittal of the grant the patent: | | | |
| Iceland | 5th anniversary of grant | | |
| Turkey | 1st anniversary of grant | | |
| Uruguay | 1st anniversary of grant | | |
| (h) due within two months after the date of grant: | | | |
| Bulgaria | anniversary of filing which is the first after grant | | |
| Finland | anniversary of filing which is the first after grant | | |
| Mexico | 3rd anniversary of grant | | |
| Mongolia | last day of second month after first anniversary of grant | | |
| Soviet Union | anniversary of filing which is the first after grant | | |

²¹ Actually, the fee is payable after the acceptance of the application, along with the publication fee, in order for the application to be published.

²² If more than three years have elapsed up to grant, then fees must be paid for each additional year thus elapsed.

II. Second, Third, etc., Payments of Maintenance Fees

(a) each payment good for ONE year (i.e., annual payments)

- (i) due on the first, second, etc., anniversary of the filing date of the application:
Belgium,
Democratic People's Republic of Korea,
France,
Iran (Islamic Republic of),
Lebanon,
Luxembourg,
Monaco,
Morocco;
- (ii) due on the second, third, etc., anniversary of the filing date of the application:
ARIPO,
OAPI,
Algeria,
Cuba,
German Democratic Republic,
Iraq,
South Africa,
Spain,
Sudan;
- (iii) due on the third, fourth, etc., anniversary of the filing date of the application:
EPC,

China,²³
 Denmark,
 Egypt,
 Germany (Federal Republic of),
 Netherlands,
 Norway,
 Sweden,
 Switzerland,²⁴

- (iv) due on the fourth, fifth, etc., anniversary of the filing date of the application:
 Brazil;

- (v) due on the fifth, sixth, etc., anniversary of the filing date of the application:
 Bahamas,
 Barbados,
 Malta,
 Pakistan,
 Syria,
 Thailand,
 United Kingdom;

- (vi) due on the anniversary of the filing date of the application which is the first, second, etc., after publication, for opposition purposes, of the application:
 Hungary;

- (vii) due on the anniversary of the filing date of the application which is the first, second, etc., after grant:
 Bulgaria,
 Finland,
 Nigeria,
 Romania,²⁵
 Soviet Union;

- (viii) due on the anniversary of the filing date of the application which is the second, third, etc., after grant:
 Nigeria;

- (ix) due on the third, fourth, etc., anniversary of the filing date of the complete specification:
 Australia,
 India,
 Malawi;

- (x) due on the fourth, fifth, etc., anniversary of the filing date of the complete specification:
 Zambia,
 Zimbabwe,

- (xi) due on the fifth, sixth, etc., anniversary of the filing date of the complete specification:
 Ireland;

- (xii) due on the first, second, etc., anniversary of the date of publication, for opposition purposes, of the application:
 Austria;

²³ "Maintenance" fees are payable annually from the second anniversary of the filing date until the grant of the patent. Thereafter, so-called "annual" fees are due. The first "annual" fee is due at the time of grant of the patent and the subsequent "annual" fees are due thereafter annually on the anniversary of the filing date.

²⁴ The Swiss law also applies to Liechtenstein.

²⁵ Actually, the second payment is due within three months from the date of the grant of the patent; the subsequent payments are due on the anniversary of the filing date of the application which is the second, third, etc., after grant.

(xiii) due on the anniversary of the date of publication, for opposition purposes, of the application which is the first, second, etc., after grant:
 Japan,
 Republic of Korea;

(xiv) due on the date of grant and the anniversary of the filing date of the application which is the first, second, etc., after grant:
 Italy;²⁶

(xv) due on the first, second, etc., anniversary of the date of grant of the patent:
 Portugal,
 Tunisia,
 Turkey,
 Uruguay,
 Venezuela,
 Viet Nam;

(xvi) due within two months after the first, second, etc., anniversary of the date of grant of the patent:
 Mongolia;

(xvii) due on the second, third, etc., anniversary of the date of grant of the patent:
 Greece;

(xviii) due on the third, fourth, etc., anniversary of the date of grant of the patent:
 Malaysia,
 Sri Lanka;

(xix) due on the fourth, fifth, etc., anniversary of the date of grant of the patent:
 Philippines;

(xx) due on the first day of the first, second, etc., calendar year after grant:
 Romania;

(xxi) due in January of the first, second, etc., year after grant:
 Bolivia;

(b) *each payment good for the same number of years for each period, each period being TWO, THREE, FOUR or FIVE years*

(i) good for *two* years
 due on the 6th, 8th, 10th anniversary of the filing date:
 Israel;

(ii) good for *three* years
 due on the 7th, 10th and 13th anniversary of the filing date of the complete specification:
 New Zealand;

(iii) good for *four* years
 due on the 8th, 12th and 16th anniversary of the filing date:
 Jordan;

(iv) good for *five* years
 due on the 5th, 10th and 15th anniversary of grant:
 Iceland;

(c) *other*

(i) second payment good for *three* years
 due on the 5th anniversary of the filing date

²⁶ See footnote 18.

and subsequent payments good for *one* year due on the 8th, 9th, etc., anniversary of the filing date:

Czechoslovakia,
Poland;

- (ii) second payment good for *four* years due on the 3rd anniversary of grant and third (and last) payment good for *three* years due on the 7th anniversary of grant: Mexico;
 - (iii) second payment good for *four* years due on the $7\frac{1}{2}$ anniversary of grant and third (and last) payment good for *five and a half* years due on the $11\frac{1}{2}$ anniversary of grant: United States of America.

Part Three: Provisional Protection of Applicant

14. The expression "provisional protection" means a protection during a period preceding the date on which the effects of the patent begin, which typically (but not necessarily) is the date of grant of the patent. A need for such protection may in particular exist where the patent application is published before the grant of the patent, since such a publication discloses the invention to everybody. The protection provided for in such cases is called "provisional" because, if no patent is granted, there was no justification for such a protection and normally the applicant has to compensate any damage caused to a party by having invoked the provisional protection.

15. Annex 1 contains an analysis of the provisions concerning provisional protection in those 45 countries in which in 1985 (or in 1984, if statistics for 1985 were not available) the highest number of patents and/or inventors' certificates were granted, in the European Patent Convention (EPC) and in the Agreement Relating to the Creation of an Intellectual Property Organization (Bangui Act) within the framework of the African Intellectual Property Organization (OAPI).

16. The relevant information is presented in the form of a table in order to illustrate the existing differences.

17. Out of the 45 countries and two regional patent conventions covered in Annex I, 27 countries and the said two conventions provide for some kind of provisional protection; 18 countries do not provide for any such protection. Most of the latter countries do not publish patent applications before granting a patent.

Part Four: Prior Users' Rights

18. Under certain laws, the owner of a patent cannot prohibit the use of the patented invention to a person who has started such use before the filing date or the priority date. Thus, such a "prior user" has a right to continue the use despite the grant of the patent. Under some laws, actual use before the filing date or the priority date is not necessary; mere prepara-

tions for use or even "possession" (i.e., knowledge sufficient for use of the invention) is sufficient under those laws. All those cases are covered by the expression "prior users' rights."

19. It is to be noted that a right to use a patented invention means, in the case of a product patent, the right to produce the product and to distribute it and, in the case of a process patent, the right to use the process and—where the applicable law extends process protection to directly obtained products—to distribute products directly obtained from the said process.

20. Annex II contains an analysis of the provisions concerning prior users' rights in those 45 countries in which in 1985 (or in 1984, if statistics for 1985 were not available) the highest number of patents and/or inventors' certificates were granted and under the Agreement Relating to the Creation of an Intellectual Property Organization (Bangui Act) within the framework of the African Intellectual Property Organization (OAPI). The European Patent Convention (EPC) is not referred to since it does not cover this aspect of patent law, leaving it to the national laws of its Contracting States.

21. The relevant information is presented in the form of a table in order to illustrate the existing differences.

22. Out of the 45 countries and one regional patent convention covered in Annex II, 28 countries and the Bangui Agreement provide for some kind of prior users' rights; 12 countries do not provide for any such right, and five countries have particular provisions for the situations which in the first group of countries give rise to prior users' rights.

ANNEX I

Table Concerning Provisional Protection of Applicant

| Country/Regional Treaty | Provisional Protection Between Filing Date and Date on Which Effects of Patent Begin | | |
|---------------------------|--|---------------------------------|--------------------------|
| | Period Between FD and P1 | Period Between P1 and P2 | Period Between P2 and DE |
| Hungary | XXXXXXX ² | XXXXXXXXXXXXXXXXXX | |
| India | | XXXXXXX ² | |
| Ireland | | XXXXXXX ² | |
| Israel | | XXXXXXX ² | |
| Italy | XXXXXXX ¹ | XXXXXXXXXXXXXXXXXX | |
| Japan | | XXXXXX ^{5,6} XXXXXXXX | |
| Luxembourg | | | |
| Mexico | | | |
| Morocco | | | |
| Netherlands | ////////// ^{2,7} | XXXXXXX ² | |
| New Zealand | | XXXXXXX ² | |
| Norway | ////////// ² | XXXXXXX ² | |
| Philippines | | | |
| Poland | XXXXXXX ² | XXXXXXXXXXXXXXXXXX ² | |
| Portugal | | | |
| Republic of Korea | XXXXXX ^{6,8} | XXXXXXX ² | |
| Romania | | | |
| South Africa ⁹ | | XXXXXXX ¹⁰ | |
| Soviet Union | | | |
| Spain | XXXXXXX ¹¹ | ////////// | |
| Sweden | ////////// ² | XXXXXX ² | |
| Switzerland | ////////// ² | XXXXXX ^{2,12} | |
| Turkey | | | |
| United Kingdom | | XXXXXXXXXXXXXXXXXX ² | |

| Country/Regional Treaty | Provisional Protection Between Filing Date and Date on Which Effects of Patent Begin | | |
|--------------------------|--|---------------------------------|--------------------------|
| | Period Between FD and P1 | Period Between P1 and P2 | Period Between P2 and DE |
| United States of America | | | |
| Uruguay | | | |
| Venezuela | | | |
| Yugoslavia | XXXXXXX ² | XXXXXXXXXXXXXXXXXX ² | |

*Explanations*¹ = no provisional protection.² = protection substantially equivalent to effects of patent.³ = protection not equivalent to effects of patent (e.g., mere right to reasonable compensation).

FD = Filing date.

P1 = Publication of unexamined or not completely (i.e., not covering novelty and inventive step) examined application.

P2 = Publication of application after examination of all formal and substantive grounds.

DE = Date on which effects of patent begin.

⁴ If and from the time at which official copy of application is notified to individual user.⁵ Proceedings (or, at least, final decision) possible only after grant of patent.⁶ P1 takes place only at request of applicant.⁷ P1 corresponds to issue of provisional patent.⁸ If and from the time at which individual user received writ of warning or knew of application.⁹ Right cannot be exercised before P2.¹⁰ Only for acts performed after 30 days from serving writ of warning upon individual user.¹¹ If and from the time at which individual user received writ of warning.¹² P1 takes place only if application claims priority under the Paris Convention.¹³ Proceedings possible only after nine months from sealing of patent.¹⁴ If and from the time at which individual user was informed of application.¹⁵ P2 takes place only for a few specific technical fields.

ANNEX II

Table Concerning Prior Users' Rights

| Country/Regional Treaty | Right to Use Patented Invention Based on Possession, Preparations for Use or Use Before Filing Date or Priority Date | | | | | |
|-------------------------|--|----------------------|-----|--|---------------------------------------|-----------------------|
| | Facts Giving Rise to Right of Use | | | Knowledge Must not be Derived from Owner of Patent (or his Predecessor in Title) | Right of Use Limited to | Particular Provisions |
| | Possession | Preparations for Use | Use | | Scope of Original Use or Preparations | |
| OAPI | | yes | yes | | | yes |
| Argentina | | | | | | |
| Australia | | | | | | |
| Austria | | yes | yes | | | yes |
| Belgium | yes | 1 | yes | | | |
| Brazil | | | | | | |
| Bulgaria | | yes | yes | yes | | |
| Canada | | | | | | 2 |
| Chile | | | | | | |
| China | | yes | yes | | yes | |
| Colombia | | | | | | |
| Czechoslovakia | | yes | yes | yes | | |
| Denmark | | yes | yes | | yes | 3 |
| Finland | | yes | yes | | yes | 3 |
| France | yes | 1 | 1 | | | |

| Country/Regional Treaty | Right to Use Patented Invention Based on Possession, Preparations for Use or Use Before Filing Date or Priority Date | | | | | |
|------------------------------|---|-------------------------|-----|--|--------------------------|--------------------------|
| | Possession | Preparations for Use | Use | Knowledge Must not be Derived from Owner of Patent (or his Predecessor in Title) | Right of Use Limited to | Particular Provisions |
| | | | | Scope of Original Use or Preparations | Needs of Own Business | |
| German Democratic Republic | | yes | yes | | | |
| Germany, Federal Republic of | | yes | yes | under certain conditions ⁴ | | yes |
| Greece | | yes | yes | | | yes |
| Hungary | | yes | yes | yes | | |
| India | | | | | | 5 |
| Ireland | | | | | | 5 |
| Israel | | yes | yes | | | yes |
| Italy | | | yes | | yes | |
| Japan | | yes | yes | yes | yes | |
| Luxembourg | | yes | yes | | | |
| Mexico | | yes | yes | | | |
| Morocco | | | | | | |
| Netherlands | | yes | yes | yes | | |
| New Zealand | | | | | | 5 |
| Norway | | yes | yes | | yes | 3 |
| Philippines | | | | | | |
| Poland | | yes | yes | | yes | yes |
| Portugal | | | | | | |
| Republic of Korea | | yes | yes | | | yes |
| Romania | | yes | yes | yes | | |
| South Africa | | | | | | 7 |
| Soviet Union | | yes | yes | yes | | |
| Spain | | yes | yes | | yes | yes |
| Sweden | | yes | yes | | yes | 3 |
| Switzerland | | yes | yes | | | yes |
| Turkey | | | | | | |
| United Kingdom | | yes | yes | | | 5 |
| United States of America | | | | | | |
| Uruguay | | | | | | |
| Venezuela | | | | | | |
| Yugoslavia | | yes | yes | | | |

Explanations

"yes" means that the solution indicated in the heading of the table is provided for in the applicable legislation (if there is no "yes" under the heading "Facts Giving Rise to Right of Use," possession, preparation for use or use before the filing date or priority date do not create a right to use the patented invention).

¹ Since possession is sufficient, it is assumed that preparations for use or use create the same right as possession.

² Specific articles produced before the grant of a patent may be used and sold also after grant.

³ Use or preparation for use between priority date and first publication of application may under special circumstances justify a compulsory license.

⁴ If the applicant, or his predecessor in title, has, before applying for a patent, disclosed the invention to other persons and reserved his rights for the case that a patent might be granted, any person knowing of the invention because of this disclosure cannot claim a prior user's right relying on measures he has taken within six months from the disclosure.

⁵ Use for government purposes is exempted from patent effects if the invention has been recorded or tried, before the priority date, by or on behalf of the government and this was not dependent upon a communication derived from the owner of the patent or his predecessor in title.

⁶ Patent effects do not extend to identical products existing in the country at the national filing date.

⁷ Secret use on a commercial scale within the country before priority date effects novelty.

Treaties

Patent Cooperation Treaty (PCT)

Corrigendum

In the table of Contracting States of the PCT published in the January 1988 issue of *Industrial Property*, p. 14, the second sentence of footnote 1 should be transferred to footnote 2, which now reads:

"² With the declaration provided for in Article 64(1)(a). The said declaration was withdrawn by the United States of America with effect from July 1, 1987."

Studies

The Contribution of the Customs Authorities to the Fight Against Counterfeiting

J.-C. RENOUE*

News Items

DEVELOPMENTS IN INDUSTRIAL PROPERTY LEGISLATION FROM 1984 TO 1987*

The following study presents an overview of developments in the industrial property legislation of various countries between 1984 and 1987. The information is derived from the communications and annual reports of industrial property offices received by the International Bureau of WIPO.

I. National Legislation

Australia. The laws on patents, trademarks (to be published) and industrial designs have been amended as regards penalties. The Patents Act has been further amended, in particular, by the introduction of new provisions on microorganisms and on the submission of abstracts of patent applications under the same conditions of publication as the complete specifications and the specifications for petty patents.

Austria. The Patent Law (Federal Law of 1970, as last amended by the Law of May 23, 1984 (Text 2-001, IP 2, 3/1986), was further modified by the Federal Law of June 27, 1986. The provisions now adopted recognize the patentability of microorganisms as such, thereby harmonizing Austrian legislation with the interpretation given by the European Patent Office to Article 53(b) of the European Patent Convention (EPC).

The Trademark Protection Law (Federal Law of 1970, as last amended by the Law of March 4, 1984, amending the Patent Law and the Trademark Protection Law (Text 3-001, IP 5/1986)), entered into force on April 1, 1984; the amendments concern an increase in fees.

The new Order of the Federal Minister for Commerce, Trade and Industry concerning implementation of the 1970 Patent Law and the 1970 Trademark Law (Patents and Trademarks Order) of February 6, 1985, entered into force on April 1, 1985. The main aim of the amendments was to adapt the Order to the amendments made to the aforementioned Laws, in

particular to adapt the provisions concerning the form of patent applications to the Regulations under the EPC. In view of the large number of amendments, a new text was issued in preference to a revision of the previous Order.

The new Order of the President of the Austrian Patent Office of January 29, 1985, on the filing of documents with the Patent Office, patents and trademarks procedure and the establishment of a Central Designs Archive (*Patentamtsverordnung*) entered into force on February 16, 1985. The main objectives of this text are basically the same as for the above-mentioned Order.

Barbados. The 1981 Patents Act (No. 55 of December 21, 1981, amended by the 1984 Act, amending the Intellectual Property Acts, No. 20 of June 22, 1984) (Text 2-001, IP 7-8/1985), the 1981 Trade Marks Act (No. 56 of December 21, 1981, amended by the 1984 Act, amending the Intellectual Property Acts, No. 20 of June 22, 1984 (Text 3-001, IP 10/1985) and the 1981 Industrial Designs Act (No. 57 of December 21, 1981) (Text 4-001, IP 1/1986), together with their Implementing Regulations, entered into force on January 1, 1985, thereby establishing the new system of industrial property protection in that country.

Belgium. The new Patent Law (of March 28, 1984) (Text 2-004, IP 6, 9/1985, 10/1987) entered into force on January 1, 1987 (with the exception of Sections 1, 59, 64, 65, 66(1), 69, 70 and 76.4, which entered into force on March 19, 1985). The new text supersedes the former (1854) Patent Law and brings national legislation up to date and harmonizes it with the Paris Convention for the Protection of Industrial Property, the Patent Cooperation Treaty (PCT) and the EPC, in particular.

The Royal Decree on Applications for Patents and the Granting and Maintenance of Patents (of December 2, 1986) entered into force on January 1, 1987 (Text 2-005, IP 10/1987).

The aforementioned text amends the Royal Decree on the Filing of a European Patent Application, its Conversion into a National Patent Application and the Registration of European Patents Having Effect in Belgium (of February 27, 1981) (Text 2-002, IP 10/1987), and also the Royal Decree on the Filing of International Patent Applications in Belgium (of August 21, 1981) (Text 2-003, IP 10/1987).

* The texts published in *Industrial Property Laws and Treaties* (see the cumulative index of legislative texts inserted in the January 1988 issue of *Industrial Property*) are followed, in brackets, by the number of the text, the month (in Arabic figures) and the year of publication in *Industrial Property* (IP). The tables of member States of the treaties administered by WIPO (together with the date of entry into force of the various acts) are also given in the January 1988 issue of *Industrial Property*.

The main purpose in adopting this new legislation was to adapt national laws to the EPC.

See also "III. Regional Treaties, Benelux" (Registration of Service Marks).

Canada. The amendment to the Patent Act received the royal consent on November 19, 1987. The new provisions basically concern microorganisms, pharmaceutical inventions, matters of fees and application of the PCT to which Canada is to accede (to be published).

Chile. The Decree-Law on Industrial Property, No. 958 of June 8, 1931, as last amended by Law No. 18.591 of January 3, 1987, updates the scale of fines and adopts the International Classification of Goods and Services for the Purposes of the Registration of Marks.

China. The Implementing Regulations of the Patent Law approved by the State Council and promulgated by the Patent Office on January 19, 1985, with Proclamation (No. 3) of the Patent Office of the People's Republic of China (January 19, 1985) (Text 2-002, IP 3/1985, 9/1986) entered into force on April 1, 1985.

Proclamation (No. 4) of the Patent Office of the People's Republic of China (of January 19, 1985) (Text 2-003, IP 3/1985) entered into force on April 1, 1985.

The Provisional Regulations on Claims of the Right of Priority with Respect to Applications for the Registration of Trademarks (in China) (approved by the State Council and promulgated by the State Administration for Industry and Commerce of the People's Republic of China on March 15, 1985) (Text 3-003, IP 10/1985) entered into force on March 19, 1985.

Democratic People's Republic of Korea. A new Law on Inventions and Innovations was adopted on June 28, 1986, and entered into force on November 1, 1986; its Regulations were adopted on October 28, 1986.

Denmark. The Patents Act (No. 479 of December 20, 1967, as last amended by Act No. 153 of April 11, 1984) (Text 2-001, IP 9/1986) entered into force on July 1, 1985). The amendments basically concern adoption of provisions on the deposit of microorganisms following the accession of Denmark on July 1, 1985, to the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure.

Finland. The Patent Law (No. 550 of December 15, 1967, as last amended by Law No. 387 of May 10, 1985) (Text 2-001, IP 12/1986), entered into force on September 1, 1985. The amendments were made principally to adapt national legislation to the Budapest Treaty, which entered into force in respect of Finland on September 1, 1985.

France. The Patent Law (No. 68-1 of January 2, 1968, supplemented by Law No. 70-489 of June 11, 1970, amended and supplemented by Law No. 78-742 of July 13, 1978, and last amended and supplemented by Law No. 84-500 of June 27, 1984) (Text 2-001, IP 10/1979, 1, 2/1985) entered into force on June 30, 1984. The 1984 amendments and supplements particularly concerned the prohibition of acts of counterfeiting, the possibility of requesting establishment of the fact that a patent is opposable to ongoing industrial working, the competence of the Paris Court of Appeal to hear appeals from decisions taken by the Director of the National Institute of Industrial Property (INPI) and the possibility for an applicant to have the assistance of a patent attorney in proceedings before INPI.

The Decree on Applications for Patents and Utility Certificates and the Grant and Maintenance in Force of Such Titles (No. 79-822 of September 19, 1979, as amended by Decrees Nos. 81-865 of September 11, 1981, 82-1000 of November 23, 1982, and 84-918 of October 10, 1984) entered into force on October 17, 1984 (Text 2-006, IP 2/1980, 1, 2/1985, 6, 12/1987).

The Decree on Employees' Inventions (No. 79-797 of September 4, 1979, as amended by Decree No. 84-684 of July 17, 1984) (Text 2-007, IP 1, 2/1985) entered into force on July 24, 1984.

Law No. 85-660 of July 3, 1985, on Authors Rights and the Rights of Performers, Producers of Phonograms and Videograms and Audiovisual Communication Enterprises (Text 1-001 (extract), IP 11/1985), including provisions dealing with the protection of software for a period of 25 years as from its creation, entered into force on January 1, 1986.

Law No. 87-890 of November 4, 1987, on the Protection of Topographies of Semiconductor Products and the Organization of the National Institute of Industrial Property (extract) (Text 1-002, IP 2/1988), which constitutes the national instrument to implement the European Communities Council Directive 87/54/EEC (see "III. Regional Treaties") will enter into force on the date of entry into force of its implementing decree.

German Democratic Republic. The Law on Distinctive Signs for Goods (November 30, 1984) (Text 3-001, IP 11/1985) entered into force on April 1, 1985. The main aim of this Law was to harmonize national legislation with the provisions of the Paris Convention and the Madrid Agreement Concerning the International Registration of Marks; it has introduced, in particular, legal protection for indications of source, service marks and the get-up and packaging of goods, *ex officio* examination in respect of prior rights, protection of the name of an enterprise used for marking goods or services, transfer of a mark and authorization to use given to a third party (a mark may now be transferred without the enterprise where there is no likelihood of users or consumers being misled as to the goods); registration of collective indications of source.

The First Implementing Regulation of the Law on Distinctive Signs for Goods (December 3, 1984) (Text 3-002, IP 11/1987) and the Regulations Concerning the Requirements for Applications for Distinctive Signs for Goods (January 10, 1985) (Text 3-003, IP 11/1987) entered into force on April 1, 1985.

Germany (Federal Republic of). In the last few years, the Utility Model Law has undergone a large number of amendments, which have been consolidated in the text of August 28, 1986, which entered into force on January 1, 1987 (Text 2-003, IP 7-8/1987). Under the latter text, utility model protection is afforded only to tools and implements, articles of everyday use or parts thereof that embody a new configuration, arrangement, device or circuitry, involve inventive act and are industrially applicable. Novelty is not affected by prior use outside the country, by public oral description, by description or use during the six months preceding the date relevant for priority if based on the conception of the applicant or his predecessor in title; utility models also benefit from exhibition priority of six months. The concept of inventiveness, required to obtain utility model protection, differs from that of inventive step (required for obtaining a patent) in that it requires a lower level of inventive activity. Protection afforded to utility models takes effect on registration. As of January 1, 1987, the maximum term of protection is eight years. The applicant may file for one and the same invention a patent application and a utility model application, whether simultaneously or not, and may claim the filing date of the earlier application for the purposes of an application filed later on.

The Order Concerning Utility Model Applications of November 12, 1986, entered into force on January 1, 1987 (to be published).

The Industrial Designs Law, as most recently amended by the Law of December 18, 1986, will enter into force on July 1, 1988, with the exception of Sections 12, 12a, 15 and 16, which entered into force on December 19, 1986 (to be published). This text replaces the former Law of 1876.

The Law on the Protection of the Topographies of Microelectronic Semiconductor Products (Semiconductor Protection Law) of October 22, 1987 (Text 1-004, IP 1/1988), which entered into force on November 1, 1987, constitutes the national instrument implementing the European Communities Council Directive 87/54/EEC (see "III. Regional Treaties").

Guatemala. The Law on Patents, Utility Models and Industrial Designs (Decree-Law No. 153-85 of December 30, 1985) entered into force on February 8, 1986.

Hungary. Law No. IV of 1984 on the Prohibition of Unfair Economic Activities (of October 31, 1984) (Text 5-001, IP 12/1985) entered into force on January 1, 1985. This Law protects the lawful interests of compet-

itors and consumers by prohibiting acts that jeopardize the reputation of a competitor, the use and disclosure of business secrets, acts liable to mislead consumers in respect of goods, concerted activities aimed at preventing or impairing normal economic competition, abuse of a dominant economic position, the practicing of unfair prices; the measures taken include establishment of the infringement, prohibition of the continuation of such acts, restoration of the prior situation, payment of damages, and economic fines.

The Joint Decree Relating to the Execution of the Law on the Protection of Inventions by Patents (No. 4/1969(XII.28)OMFB-IM of the President of the National Committee for Technical Development and the Minister of Justice, as amended by Decrees Nos. 4/1983(V.12)IM and No. 11/1986(IX.11)IM of the Minister of Justice (Text 2-007, IP 4/1987), entered into force on September 30, 1986.

Decree No. 15/1986(IX.17)MEM of the Minister of Agriculture and Food on the Deposit and Handling of Microorganisms for the Purposes of Patent Procedure (Text 2-009, IP 4/1987) entered into force on September 30, 1986.

Italy. Following entry into force of the Hague Agreement Concerning the International Deposit of Industrial Designs of 1925, with respect to Italy, the utility model and industrial design legislation was harmonized with the text of the Agreement.

The Law on Patents for Inventions (consolidated version of Royal Decree No. 1127 of June 29, 1939, as last amended by Law No. 60 of February 14, 1987), entered into force on March 20, 1987 (Text 2-001, IP 10/1981, 11/1987). The Law now comprises provisions on conversion of one industrial property title to another industrial property title.

The Legislative Provisions on Industrial Model Patents (Royal Decree No. 1411 of August 25, 1940), as last amended by Law No. 60 of February 14, 1987, which entered into force on March 20, 1987 (Text 1-007, IP 11/1987), governs utility models and industrial designs. The amendments include extension of the compulsory licensing provisions of the Patent Law to utility models, the possibility of claiming the priority of an application filed for one industrial property title when another industrial property title is granted and public inspection of utility model applications. As far as industrial designs are concerned, the amendments are intended to harmonize the national law with the provisions of the Hague Agreement.

The Regulations Concerning Patents for Industrial Models (Royal Decree No. 1354 of October 31, 1941, as last amended by Law No. 60 of February 14, 1987), which governs both utility models and industrial designs, was amended in consequence and entered into force on March 20, 1987 (Text 1-008, IP 11/1987).

Japan. The Patent Law (No. 121 of April 13, 1957, as last amended by Law No. 41 of 1985) (Text 2-001,

IP 6, 7-8/1986 and amendments to be published) entered into force on November 1, 1985. The amendments are intended to adapt the law to the provisions of the PCT and its Regulations and to harmonize procedural aspects with present worldwide developments.

The Act Concerning the Circuit Layout of a Semiconductor Integrated Circuit (Law No. 43, 1985, promulgated on May 31, 1985) (Text 1-001, IP 9/1985) (for its entry into force, see Section 1 of the Supplementary Provisions). A circuit layout right is obtained by registration for a term of 10 years; registration cannot be obtained where the circuit layout has been used by the creator or a person authorized by him for business purposes two years or more prior to the date of the application.

The Law for Partial Amendments to the Copyright Law (No. 62, of June 14, 1985) (Text 1-002, IP 11/1985), including provisions on computer programs, entered into force on January 1, 1986. The date of creation of a program work may be registered, thus creating a presumption of creation on the registered date.

Liechtenstein. The Law on the Protection of Trademarks, Indications of Source of Goods and Commercial Awards of October 26, 1928, as amended by the Laws of August 7, 1952, and January 9, 1964, was further amended by introducing the registration of service marks on December 19, 1985 (Text 3-001, IP 7-8/1987). This text is now called the "Law on the Protection of Trademarks and Service Marks, Indications of Source of Goods and Commercial Awards."

Luxembourg. See "III. Regional Treaties, Benelux" (Registration of Service Marks).

Malaysia. The new Patents Act 1983 (No. 291 of 1983, as amended by Act A648 of 1986) (Text 2-001, IP 1, 2/1987) entered into force on October 1, 1986.

This Act is the first federal law providing for autonomous filing of patent applications with the national Patent Registration Office or its branch offices. The transitional provisions provide that, as a rule, patents granted under United Kingdom law and the previous legislation of the States of the Malaysian Federation shall remain in force until their term expires under the prior law.

Mexico. The Decree of December 29, 1986, has made significant amendments to the Law on Inventions and Marks of December 30, 1975 (Text 1-001, IP 4/1976 and amendments to be published); these entered into force on January 17, 1987. As regards patents, the term of protection was extended to 14 years as from the date of issue. Under the transitional provisions, certain exceptions to patentability or protection by certificate of invention will cease to apply on January 16, 1997 (on expiry of 10 years as from publication of the amending law in the Official Gazette of the Federation, i.e., January 16, 1987). Biotechnological products as such

and processes will then become patentable. As far as marks are concerned, the requirement that a Mexican mark be used jointly with a foreign sign has been deleted. New provisions have been introduced to combat piracy.

Netherlands. This country acceded, with effect on December 3, 1987, to the 1963 Convention on the Unification of Certain Points of Substantive Law on Patents for Invention.

Law No. 484, of October 28, 1987, Containing Regulations on the Protection of Original Topographies of Semiconductor Products, and its Implementing Decree, which both entered into force on November 7, 1987, constitutes the national implementing legislation to the European Communities' Council Directive 87/54/EEC (see "III. Regional Treaties") (Texts 1-001 and 1-002, IP 5/1988).

See also "III. Regional Treaties, Benelux" (Registration of Service Marks).

Oman. The country's first Trade Marks and Commercial Indications Law, of October 5, 1987, promulgated by Royal Decree No. 68/87 of October 5, 1987, entered into force on October 15, 1987; however, it will not apply until the date of entry into force of its regulations. The Law provides for registration of trademarks for goods and services in the Trade Marks Register kept by the Commercial Agencies and Trade Marks Department attached to the Ministry of Commerce and Industry (to be published).

Poland. The Law on Inventive Activity (of October 19, 1972, as amended by the Law of April 26, 1984) (Text 2-001, IP 4/1986) entered into force on July 1, 1984. This Law governs inventions, utility models and rationalization proposals. Its aim is to stimulate inventive activity and it has extended the rights of inventors in proceedings before the Patent Office by permitting them to participate in all phases.

The new Law on Trademarks (of January 31, 1985) (Text 3-001, IP 2/1987) entered into force on July 1, 1985. Adoption of this Law was the result of the need to adapt national legislation to the principles of economic reform and to the provisions of the Paris Convention, taking into account both the interests of producers and of consumers. A new feature is the protection of service marks.

Republic of Korea. Patent Law No. 950 of December 31, 1961, as last amended by Law No. 3891 of December 31, 1986, entered into force on July 1, 1987 (Text 2-001, IP 3, 4/1988). The general trend of the 1986 amendments has been to strengthen protection and harmonize national legislation with the Paris Convention, the PCT and the Budapest Treaty so as to promote and encourage technology and the industrialization of the country. The major innovations are extension of the scope of protection to inventions by

deleting from the list of non-patentable subject matter inventions concerning medicines or processes for manufacturing medicines by the mixture of two or more medicines, inventions relating to substances obtained by chemical process, inventions for the use of chemical substances, thereby affording protection to a product irrespective of the process used to obtain it (Section 4). Microorganisms are now patentable, as are inventions of medicines (by repeal of Section 4(ii) and (iii)). The provision which did not authorize holding measures in event of infringement of patent rights for goods for which an export license had been requested or obtained, has also been repealed. Additionally, Section 46(1)(ii) has been harmonized with the wording of Article 5ter of the Paris Convention. The previous text gave the possibility of granting compulsory licenses for lack of working or for abuse of the patent; the 1986 Law has introduced a procedure of arbitration decisions for the award of compulsory licenses in the event of non-working, insufficient working from the point of view of domestic demand or export, or unjustifiable refusal to grant a license leading to prejudice to national industry (Section 51). These provisions are aligned on those of Article 5A(2) of the Paris Convention. The term of patents has been extended to 15 years as from date of publication (in the event of publication) or of registration (in the absence of publication) (Section 53(1)).

The Trademark Law, as last amended by Law No. 3892 of December 31, 1986, entered into force on December 31, 1986. The amendments mainly concern licenses; the grant of a license is left to the discretion of the owner of the mark; cancellation of a trademark right may be requested if the mark is misleading as to the origin of the goods; a license must be registered on pain of nullity.

The Law on the Prevention of Unfair Competition, No. 911 of December 30, 1961, as amended by Law No. 3897 of December 31, 1986, entered into force on January 1, 1987 (to be published).

Saudi Arabia. A new Trademark Law was promulgated on February 7, 1984 (to be published). Extensively based on the Model Trademark Regulations for the Arab Countries prepared by the Industrial Development Center of the Arab Countries in 1975, the new Law provides for separate registration for each class of goods and services, in accordance with the International Classification of Goods and Services for the Purposes of the Registration of Marks established by the 1957 Nice Agreement. Any interested third party may contest within two years of registration the exclusive trademark right deriving from entry in the trademark register kept by the Ministry of Commerce. Marks are registered for a period of 10 years as from registration (Section 25); the right deriving from registration becomes uncontestable if the proprietor uses the mark without interruption for two years following registration; infringements are punishable by a fine of up to 50,000 riyals. The principal innovations introduced by this Law are:

- registration of service marks, refusal of marks similar to marks of international reputation (whether or not registered in Saudi Arabia) (Sections 1 and 2);

- extension of the right to register marks to public organizations and similar institutions;

- the application for registration may concern only one class of goods or services (Section 6);

- the time limit for objections is reduced from six months to 90 days (Section 16);

- Sections 29 to 32 list in detail the requirements for cancelling marks; the Grievance Board (in lieu of the Commission for the Settlement of Commercial Disputes) takes the final decision;

- the Ministry of Commerce (and no longer the Ministry of Finance) is the competent authority, acting through the Grievance Board.

Implementation Regulations under the Trademark Law were issued as ministerial resolution of May 6, 1984. They contain detailed provisions on the registration of marks and their renewal (Sections 1 to 20), transfer and mortgage of marks (Sections 21 to 26), licensing (Sections 33 and 34) and the establishment of a Grievance and Objection Committee (Sections 39 to 41).

Spain. The new Law on Patents (No. 11 of March 20, 1986) (Text 2-001, IP 7-8/1986), which also governs utility models and rescinds various provisions of the Industrial Property Code of 1929, as last amended in 1975 (Text 1-002, IP 4/1985, 7-8/1986), entered into force on June 16, 1986. The main purpose of this Law was to harmonize national legislation with the provisions of the EPC and the Community Patent Convention since Spain became a party to the European Patent Convention on October 1, 1986, following its accession to the European Communities.

The Royal Decree approving the Regulations under the Patent Law, No. 11 of March 20, 1986 (No. 2245 of October 10, 1986) (to be published) entered into force on November 1, 1986.

Sweden. The Trademarks Act (No. 644 of December 2, 1960, as last amended by Act No. 234 of May 7, 1986) (Text 3-001, IP 10/1986) entered into force on July 1, 1986.

The Act for the Protection of the Layout-Design of the Circuitry in Semiconductor Products (No. 1425 of December 18, 1986) (Text 1-002, IP 10/1987) entered into force on January 1, 1987.

Switzerland. The Ordinance on Patents for Inventions (Patent Ordinance) (of October 19, 1977, as amended on April 27 and September 14, 1983, and August 12, 1986) (Text 2-002, IP 5/1987) entered into force on January 1, 1987. The main objective of the revision was to simplify the examination and granting procedure, to make Swiss patents more attractive and to extend harmonization of the Swiss and European legislation.

United Kingdom. The Patents Act 1977 (Text 2-001, IP 2, 3, 4/1978, 1/1979) was amended in 1985 to permit registered patent agents to act in proceedings before the Comptroller in respect of European patents designating the United Kingdom.

The Patents Rules 1978 were amended on several occasions (Text 2-002, IP 5/1979 and amendments to be published); these amendments mainly concern an increase in fees and the incorporation of amendments made to the PCT Regulations affecting time limits and national legislation.

The Trade Marks Act 1938 (of April 13, 1938, as last amended by the Patents, Designs and Marks Act 1986) (Text 3-001, IP 3/1987) entered into force on October 1, 1986. The main purpose of these amendments was to introduce the possibility of registering service marks.

The provisions of the Trade Marks (Amendment) Act 1984 (of May 24, 1984, as amended by the Patents, Designs and Marks Act 1986 (Text 3-002 (extract), IP 4/1987), entered into force on October 1, 1986.

The Semiconductor Products (Protection of Topography) Regulations 1987, No. 1497 of August 20, 1987, entered into force on November 7, 1987 (Text 1-001, IP 12/1987), and constitute the national implementing text for the European Communities' Council Directive 87/54/EEC (see "III. Regional Treaties").

United States of America. The United States Code, Title 35—Patents (as last amended by Public Law 99-607 of November 6, 1986, which made permanent the 50% patent fee reduction for independent inventors, non-profit organizations and small business concerns and adjusted various other fees, and by Public Law 99-616 of November 6, 1986) (Text 2-001, IP 5/1985, 4/1987 and 12/1987) entered into force on July 1, 1987. The main purpose of Law 99-616 was to withdraw the reservation which the United States had entered in respect of Chapter II of the PCT, thus enabling United States nationals to obtain examination of a PCT application on the basis of information uncovered during a PCT search. It will also give applicants additional time to decide whether to pursue patenting before they incur major expenses and will allow applicants to deal directly with European Patent Office examiners, thereby reducing costs of using foreign agents.

The United States Code, Title 15, Chapter 22—Trademarks (Lanham Act of 1946, as last modified by Public Law 98-620 of November 8, 1984) (Text 3-001, IP 7-8/1985) entered into force on November 8, 1984. The amendments mainly derive from adoption of the Trademark Counterfeiting Act of 1984 referred to below.

The Trademark Counterfeiting Act of 1984 (Chapter XV of Public Law 98/473 of October 12, 1984) (Text 3-002, IP 6/1986) entered into force on October 12, 1984. It introduced severe penal sanctions for counterfeiters, which may go up to a fine of one million dollars or 15 years' imprisonment for natural persons, and civil sanctions of up to three times the damages and costs of

legal counsel. The Law provides for the grant of seizure orders at the request of one of the parties (*ex parte*) subject to procedural safeguards. The aim of the Law is to remedy the losses suffered by national industry as a result of acts of counterfeiting and to protect public health and security by removing inferior quality counterfeited goods from the market.

The Semiconductor Chip Protection Act of 1984 (Title III of Public Law 98-620 of November 8, 1984) (Text 1-001, IP 3/1985) entered into force on November 8, 1984. It lays down a term of protection for mask works of 10 years as from registration or as from first commercial exploitation anywhere in the world where such date precedes the date of registration. Protection is afforded to the owners of foreign mask works where their country protects mask works from the United States under provisions basically the same as those adopted in the United States.

The Stevenson-Wydler Technology Innovation Act (Public Law 96-480 of October 21, 1980) as amended by Public Law 99-382 of August 14, 1986 (Text 2-002, IP 9/1987) entered into force on August 14, 1986. The amendments concern, in particular, the establishment of a program to monitor the development of Japanese technology.

II. Universal Treaties

Patent Cooperation Treaty (PCT). The amendment of February 3, 1984, to the PCT done at Washington on June 19, 1970, entered into force on January 1, 1985 (MULTILATERAL TREATIES — Text 2-006, IP 11/1980, 11/1984).

The modification of October 1, 1985, to the Regulations under the PCT entered into force on January 1, 1986 (MULTILATERAL TREATIES — Text 2-007, IP 12/1984, 12/1985).

III. Regional Treaties

Benelux. The Uniform Benelux Trademark Law of March 19, 1962, as amended on November 10, 1983, entered into force on January 1, 1987, and now bears the title of Uniform Benelux Law on Marks (MULTILATERAL TREATIES — Text 3-002, IP 6/1987) since its provisions have been extended to service marks.

European Communities. The Council Directive of 16 December, 1986 on the Legal Protection of Topographies of Semiconductor Products (87/54/EEC) (MULTILATERAL TREATIES — Text 2-011, IP 6/1987) stipulates in Article 11(1) that "Member States shall bring into force the laws, regulations or administrative provisions necessary to comply with this Directive by 7 November, 1987."

See, France, Germany (Federal Republic of), the Netherlands and the United Kingdom, above.

Council Regulation (EEC) No. 3842/86 of 1 December, 1986 Laying Down Measures to Prohibit the Release for Free Circulation of Counterfeit Goods entered into force on January 1, 1988 (MULTILATERAL TREATIES — Text 3-003, IP 7-8/1987).

European Patent Office. Spain and Greece became party to the European Patent Convention on October 1, 1986, thus bringing to 13 the number of States party to this Convention.

The Implementing Regulations to the Convention on the Grant of European Patents of October 5, 1973, as last amended on June 4, 1981 (MULTILATERAL TREATIES — Text 2-009, IP 3/1982 and amendments to be published) was amended by decisions of the Administrative Council of the European Patent Organisation on June 5, 1987, the last of which entered into force on October 1, 1987). These decisions concern suspension of proceedings, list of professional representatives, extension of time limits, examination procedure, filing of European patent applications and submission of documents.

IV. Bilateral Treaties

Czechoslovakia/Portugal. The Agreement between the Government of Portugal and the Government of Czechoslovakia on the Protection of Indications of Source, Appellations of Origin and Other Geographical and Similar Denominations entered into force on March 7, 1987 (BILATERAL TREATIES — Text 5-012, IP 5/1988).

Hungary/Portugal. The Agreement between the Government of Portugal and the Government of Hungary on the Reciprocal Protection of Indications of

Source, Appellations of Origin and Similar Denominations of May 22, 1981, entered into force on June 26, 1986 (BILATERAL TREATIES — Text 5-011, IP 9/1987).

ANGOLA

*Director,
National Institute of Intellectual Property*

We have been informed that Mr. André Rodrigues Mingas Júnior has been appointed Director of the National Institute of Intellectual Property.

NEW ZEALAND

Commissioner, Patent Office

We have been informed that Mr. Harry Burton has been appointed Commissioner of the Patent Office.

REPUBLIC OF KOREA

Administrator, Office of Patents Administration

We have been informed that Mr. Hong Shik Park has been appointed Administrator of the Office of Patents Administration.

Calendar of Meetings

WIPO Meetings

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

1988

May 30 to June 1 (Geneva)

Review Meeting on Intellectual Property in Respect of Integrated Circuits

The Meeting will review the progress of the preparatory work for the diplomatic conference on the conclusion of a Treaty on the Protection of Intellectual Property in Respect of Integrated Circuits.

Invitations: States members of WIPO or the Paris Union.

June 13 to 17 (Geneva)

Committee of Experts on the Harmonization of Certain Provisions in Laws for the Protection of Inventions (Fifth Session)

The Committee will continue to examine a draft treaty on the harmonization of certain provisions in laws for the protection of inventions dealing with the following subjects: grace period for public disclosure of an invention before filing an application; requirements in respect of the granting of a filing date to a patent application; requirements in respect of the naming of the inventor and in respect of evidence to be furnished concerning the entitlement of the applicant; requirements in respect of the manner of claiming in patent applications; requirements in respect of unity of invention in patent applications; prior art effect of previously filed but yet unpublished patent applications; rights conferred by a patent; extension of patent protection of a process to the products obtained by that process—proof of infringement of a process patent; requirements in respect of manner of description of invention in patent applications; the right to a patent where several inventors have made the same invention; extent of protection and interpretation of patent claims; the duration of patent protection; maintenance fees; provisional protection of applicants; prior users' rights; restoration of the right to claim priority; and the exclusion from patent protection of certain kinds of inventions.

Invitations: States members of the Paris Union and, as observers, States members of WIPO not members of the Paris Union and certain organizations.

June 27 to July 1 (Geneva)

Committee of Governmental Experts for the Synthesis of Principles Concerning the Copyright Protection of Various Categories of Works (convened jointly with Unesco)

The Committee will re-examine the principles of protection worked out for eight categories of works during the 1986-87 biennium (printed word, audiovisual works, phonograms, works of fine art, works of architecture, works of applied art, dramatic and choreographic works, musical works) and for photographic works in 1988.

Invitations: States members of WIPO, Unesco or the United Nations and, as observers, certain organizations.

September 12 to 19 (Geneva)

IPC (International Patent Classification) Committee of Experts (Seventeenth Session)

The Committee will adopt the final amendments, as well as the revised Guide, to the fourth edition of the International Patent Classification (IPC) and decide on the policy for the revision work during the next (sixth) revision period (1989-93).

Invitations: States members of the IPC Union and, as observers, certain organizations.

September 14 to 16 (Geneva)

WIPO Worldwide Forum on the Impact of Emerging Technologies on the Law of Intellectual Property

The Forum will consider the impact of new technology on intellectual property law, with special emphasis on biotechnology, computer technology, the new technology for the recording of sounds and images, new broadcasting technology (for instance by direct broadcasting satellite) and new technology for transmission of programs by cable.

Invitations: States members of WIPO, the Paris Union or the Berne Union, certain organizations and the general public.

September 19 to 23 (Geneva)

Consultative Meeting on the Revision of the Paris Convention (fifth session)

The meeting will deal with Articles 5A (Patents and Utility Models: Importation of Articles; Failure to Work or Insufficient Working; Compulsory Licenses), 5*quater* (Patents; Importation of Products Manufactured by a Process Patented in the Importing Country) and 10*quater* (Geographical Indications and Trademarks, etc.), and possibly other Articles on the program of the Diplomatic Conference.

Invitations: Selected governments. No observers.

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| September 22 and 23 (Geneva) | Permanent Committee on Industrial Property Information (PCIPI) (Second Session) The Committee will review the work done on the tasks of the program during the first nine months of 1988. It will start to work on the elaboration of a medium-term program for the PCIPI and of a global policy for, and the orientation of, the work of the PCIPI during the 1990-91 biennium. <i>Invitations:</i> States and organizations members of the Committee and, as observers, certain other States and organizations. |
| September 26 to October 3 (Geneva) | Governing Bodies of WIPO and of Some of the Unions Administered by WIPO (Nineteenth Series of Meetings) The WIPO General Assembly will consider the establishment of an International Register of Audiovisual Works. The WIPO Coordination Committee and the Executive Committees of the Paris and Berne Unions will, <i>inter alia</i> , review and evaluate activities undertaken since July 1987 and prepare the draft agendas of the 1989 ordinary sessions of the WIPO General Assembly and the Assemblies of the Paris and Berne Unions. <i>Invitations:</i> As members or observers (depending on the body), States members of WIPO, the Paris Union or the Berne Union and, as observers, certain organizations. |
| October 24 to 28 (Geneva) | Committee of Experts on Biotechnological Inventions and Industrial Property (Fourth Session) The Committee will examine possible solutions concerning industrial property protection of biotechnological inventions. <i>Invitations:</i> States members of WIPO or the United Nations and, as observers, certain organizations. |
| November 28 to December 2 (Geneva) | Committee of Experts on Model Provisions for Legislations in the Field of Copyright The Committee will work out standards in the field of literary and artistic works for the purposes of national legislation on the basis of the Berne Convention for the Protection of Literary and Artistic Works. <i>Invitations:</i> States members of the Berne Union or WIPO and, as observers, certain organizations. |
| December 5 to 9 (Geneva) | Madrid Union: Preparatory Committee for the Diplomatic Conference for the Adoption of Protocols to the Madrid Agreement This Committee will make preparations for the diplomatic conference scheduled for 1989 (establishment of the list of States and organizations to be invited, the draft agenda, the draft rules of procedure, etc.). <i>Invitations:</i> States members of the Madrid Union and Denmark, Greece, Ireland and the United Kingdom. |
| December 12 to 16 (Geneva) | Executive Coordination Committee of the PCIPI (Permanent Committee on Industrial Property Information) (Third Session) The Committee will review the progress made in carrying out tasks of the Permanent Program on Industrial Property Information for the 1988-89 biennium. It will consider the recommendations of the PCIPI Working Groups and review their mandates. <i>Invitations:</i> States and organizations members of the Executive Coordination Committee and, as observers, certain organizations. |
| December 19 (Geneva) | Information Meeting for Non-Governmental Organizations on Intellectual Property Participants in this informal meeting will be informed about the recent activities and future plans of WIPO in the fields of industrial property and copyright and their comments on the same will be invited and heard. <i>Invitations:</i> International non-governmental organizations having observer status with WIPO. |

UPOV Meetings

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

1988

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| October 17 (Geneva) | Consultative Committee (Thirty-eighth Session) The Committee will prepare the twenty-second ordinary session of the Council. <i>Invitations:</i> Member States of the Union. |
| October 18 and 19 (Geneva) | Council (Twenty-second Ordinary Session) The Council will examine the accounts of the 1986-87 biennium, the reports on the activities of UPOV in 1987 and the first part of 1988 and specify certain details of the work for 1988 and 1989. <i>Invitations:</i> Member States of UPOV and, as observers, certain non-member States and intergovernmental organizations. |

Other Meetings Concerned with Industrial Property

1988

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| June 6 to 10 (Munich) | European Patent Organisation (EPO): Administrative Council |
| June 7 to 10 (Strasbourg) | Center for the International Study of Industrial Property (CEIPI): Licensing and Technology Transfer Course (first module) |
| June 27 to July 1 (Cannes) | International Federation of Industrial Property Attorneys (FICPI): World Congress |
| July 24 to 27 (Washington, D.C.) | International Association for the Advancement of Teaching and Research in Intellectual Property (ATRIP): Annual Meeting |
| September 15 to 18 (Angers) | International League for Competition Law (LIDC): Congress |
| September 28 to 30 (Stockholm) | Pharmaceutical Trade Marks Group (PTMG): Conference on "A Commission of Enquiry—In Search of a System" |
| October 4 to 7 (Strasbourg) | Center for the International Study of Industrial Property (CEIPI): Licensing and Technology Transfer Course (second module) |
| November 7 to 11 (Buenos Aires) | Inter-American Association of Industrial Property (ASIPI): Congress |
| December 5 and 6 (Ithaca, New York) | Cornell University, Department of Agricultural Economics: Animal Patent Conference (Consideration of Applicable United States and International Law, Technicalities of Deposit Requirements, Status of Animal Science Research into Potentially Patentable Animal Types, Anticipated Impact of Patents on Livestock Breeding Sector and Production Agriculture, and Perspectives of Farmers and Those Concerned About Ethical Issues Involved) |
| December 5 to 9 (Munich) | European Patent Organisation (EPO): Administrative Council |

