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THE PROTECTION OF INVENTIONS: PATENTS AND OTHER TITLES OF PROTECTION

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[Introduction]

- 1. Patents constitute an important aspect of the industrial property system. They are granted by the Government in order to permit protection of inventions by means of an exclusive right which is limited in time. That protection provides a means for the inventor to obtain a reward for his achievement and induces him to disclose the invention and to work it in the country where the patent is granted.
- 2. A number of questions may be raised in connection with the patent system: why should patents be granted, in particular in developing countries, where many, if not most, inventions for which patents are requested belong to foreigners? How should a patent law be designed in order to meet the interest of developing countries? Moreover, it is no secret that the administration of the patent system requires qualified staff and--ideally--extensive and comprehensive documentation. How could this requirement be fulfilled with maximum efficiency and minimum expense in cost, time and effort? The purpose of this presentation is to give answers to these and similar questions. Of course, those answers cannot cover all aspects of each question, but the Seminar will give an opportunity to raise further questions and to clarify the issues.

[Protected Subject Matter: Inventions]

- 3. Patents deal with technology; they protect the most recent technology, namely inventions. There is no generally recognized definition of an invention, but it can be stated that an invention is a novel idea which permits in practice the solution to a specific problem in the field of technology. Inventions are not general ideas. They are directly applicable to the problems referred to, and should thus be distinguished from general principles and theories without direct application in industrial production. Inventions provide for something that did not exist before, which is different from a discovery of something that existed but was not known.
- 4. Inventions relate either to products or to processes. An improvement of an invention may itself be an invention.
- 5. Patent laws protect only new inventions. Thus the patent system deals only with the most recent technology; its significance for technology users is that inventions are disclosed in a well-established documentation and eventually become generally available to anybody interested in using them.
- 6. The patent system deals with inventions which have been made either in the country where protection is sought or in another country. For the subject matter of protection this difference is not of importance but the protection of inventions made abroad raises economic questions, which will be discussed shortly.

[Reasons for Protection]

- 7. Why should inventions be protected? There are mainly three reasons: firstly, the invention is an intellectual creation and the author has a certain right to it. For example: an inventor should be named as such, because this moral recognition of his achievement is one of the fundamental human rights. Secondly, the inventor also deserves material benefit for his achievement, for which he has normally spent time and money. Under the patent system a reward is given through the grant of a right to exclude others from exploiting the invention during a limited period of time. The third reason is to encourage disclosure: patents stimulate the disclosure and working of inventions; without the possibility of obtaining a patent, an inventor might be inclined to keep his invention secret and possibly to refrain from using it. Since the protection is limited in time, the invention disclosed by a patent becomes publicly available after the expiration of the term of protection. Thus patents are a means of stimulating use of inventions not only by the patent owner but also by other persons.
- 8. As regards inventions made in foreign countries, the first two reasons for protection apply in the same way as in the case of domestic inventions. The third reason, however, appears under a different aspect: if for an invention which was made abroad a patent is applied for in a foreign country, the invention will in due course be disclosed in that country; thus, it might no longer be necessary for other countries to grant protection in order to obtain the disclosure of inventions. However, as stated above, a patent is also a means of encouraging local working of patented inventions. Without patent protection, the holder of the technology runs the risk that, if he starts to work the invention in the country, other enterprises may do the same; thus he might refrain from making investments for establishing industrial production. This consideration applies equally to the owner of a patent himself and to a licensee. Thus patents are a vehicle for the transfer of technology. Indeed, they constitute the legal framework for trade in technology, which is of importance not only to the owners of technology but also to the recipients. Patent protection gives them the legal security upon which to base their investment to work the patented invention in the country.

[Utility Models]

9. In certain countries, utility model protection is available, sometimes limited to particular categories of inventions. Usually, the duration of protection of a utility model is shorter than that of a patent, and the conditions of and procedure for granting protection may be different and less stringent than those concerning patents.

[Requirements and Contents of Protection]

[Patentability]

10. In order to qualify for patent protection, inventions must fulfill three requirements: they must be new, involve an inventive step and be industrially applicable.

- 11. An invention is new, or in patent law terminology, there is "novelty" of invention, if the invention is not yet contained in the "state of the art," the latter generally being defined as everything which had been disclosed to the public before the filing or priority date of the application.
- 12. "Inventive step" means that, having regard to the prior art, the invention must not be obvious to a person having ordinary skill in the art; in other words, it must not be possible for an average expert to make the invention by mere routine work.
- 13. "Industrial applicability" is to be understood in a broad sense, including application not only in manufacturing but also in commerce, agriculture, handicraft, fishery, services, etc.; it means that the invention can be made (in the case of a product) or used (in the case of a process) in those areas.

[Right to the Patent]

14. National laws normally state that the inventor or his successor in title has the right to obtain the patent. However, special questions arise in the case of employees; if they are "hired to invent," their inventions normally belong to the employer, on the assumption that the reward for the invention is already covered by their salary.

[Procedure of Grant]

15. Patents are granted upon application in a formal procedure which is governed by a set of legal provisions. The most important condition in this context is that the invention be clearly and fully described so that anyone else having ordinary skill in the art is enabled to use the invention. The sufficiency of the description is of primary importance to a developing country. The scope of the protection is normally defined in the "claims," and a summary is frequently required in the form of an abstract. The patent office examines whether the formal requirements of applications are fulfilled, i.e., whether the application contains a description and claims, whether the indications concerning the applicant are complete and whether the fees have been paid. Moreover, in many countries, the patent office also examines, or causes to be examined, whether the grant of the patent is justified on substantive grounds, i.e., whether the conditions of patentability are fulfilled (in particular, as regards novelty and inventive step).

[Rights Under a Patent]

16. A patent normally confers upon its owner the right to prevent others from exploiting the invention by manufacturing or importing the patented product or using the patented process or by putting on the market products which have been manufactured in violation of the patent. It is to be noted that many national laws provide for an "exhaustion" of the patent right in the case where the owner of the patent or someone else with his consent (e.g., a licensee) has put products covered by the patent on the market and where such products are sold again (for instance, by a retailer to the consumer).

[Duration]

- 17. As already stated, patents have a limited duration, which, in most countries, is 20 years from the filing date of the application. It is necessary to have a period which is not too short in order that the availability of a patent may encourage substantial investments, on the one hand, in <u>research</u> so that inventions can be made, and, on the other hand, in <u>industrialization</u> so that inventions can be extensively exploited in the interest of the country.
- 18. Normally, the period of protection provided by the law cannot be extended, but in some legislations there are provisions for extension in certain circumstances. For example, the laws of Ireland, New Zealand and Zambia provide for the possibility of a five-year or 10-year extension if the patent owner has not been sufficiently remunerated by the patent. On the other hand, the law of the United States of America provides for the extension of the term of a patent where exploitation of the invention had to be delayed because of the required procedure for approving the marketing of the patented product. Similarly, a supplementary protection certificate for medicinal products can be obtained in member States of the European Communities.
- 19. In most countries, the maintenance of patents is subject to the payment of annual fees, which usually become higher each year since those patents which are kept in force are those which have proven valuable over time. Thus, annual fees, in particular if they increase each year, induce the owner of the patent to consider each year whether it is still worthwhile to maintain the patent by paying a fee, in particular if the amount is higher than in the preceding year.

[Licensing]

20. The owner of a patent may grant permission to another person or enterprise to exploit the patented invention either by manufacture or by sale (or by both manufacture and sale) of products containing or resulting from the patented invention. Licensing is an important means of achieving local manufacture of a patented invention whose owner resides abroad.

[Use of Patented Inventions in the Public Interest Without the Authorization of the Owner of the Patent]

21. Some laws allow for the Government to authorize the exploitation of patented inventions without the authorization of the owner of the patent in order to meet the needs of the public interest. The exploitation is usually subject to payment, to the owner of the patent, of a remuneration which, in the absence of agreement between the parties, is determined by the courts.

[Sanctions Against Infringement]

22. In the majority of countries, the application of sanctions against the infringement of a patent are within the competence of the courts. On the petition of the owner of the patent, and in some cases of the licensee, the courts may order the infringer to refrain from infringing the patent and award damages to the owner of the patent (and/or the licensee) for any loss suffered. In some cases, acts of infringement may also be subject to penal sanctions.

[The Role of the Administration]

- 23. As has been said, the granting of patents is the responsibility of the Government, usually operating through an industrial property office or a patent office, and there are two distinct systems for the granting of patents. In the simpler system, a patent may be granted merely upon application without any examination by the office except to ensure that the application is in accordance with the law <u>as to form</u>. This is a comparatively simple process, but gives no indication to the owner of the patent that his invention is, in fact, novel, non-obvious and capable of industrial application. The more complicated system involves an <u>examination as to patentability</u> (i.e., an examination as to substance) carried out by the patent office or by another designated authority. Such an examination gives the applicant greater assurance that the patent which he will ultimately obtain will be valid and will generally stand up to attack. In this context, it may be useful for the patent office to be able to request that the applicant furnish specified information concerning corresponding patent applications filed by him abroad relating to the same or essentially the same invention.
- 24. It is obvious that the simpler system requires a much smaller industrial property office than the substantive examination system where the examination is carried out by the industrial property office itself. The latter, in fact, calls for a fairly large staff of highly qualified examiners and an extensive documentation collection, which many countries may find expensive and difficult to obtain and maintain.
- 25. Another system is that of deferred examination, which now exists in some countries, in particular, Germany, Hungary, Japan and the Netherlands, and, to a certain extent, in the procedure under the European Patent Convention. Under such a system, the substantive examination of the patent application is carried out only upon the request of the applicant. Such a request must be made within a certain number of years (e.g., two years from the date of publication of the application) or else the application is considered withdrawn.
- 26. The establishment and operation of a patent office (which normally also discharges the functions of an office for the registration of trademarks and industrial designs) is the responsibility of the Government. That office would normally be a subdivision of a government department, for example, the Ministry of Industry.
- 27. The cost of running a patent office depends on the size and qualifications of its staff. As an ultimate goal, the office would be expected to be self-supporting, thanks to the income derived from fees for the grant of patents and the registration of trademarks and industrial designs.

- 28. There are several systems for the payment of fees: for example, an outright single payment for the grant of a patent for a specified number of years, or a smaller fee on application and/or grant, supplemented by annual fees calculated on a rising scale throughout the duration of the patent. The latter system is applied by the majority of countries that provide for patent protection; it is generally considered to be more favorable to the owner of the patent and to the public, since it gives the owner of the patent the opportunity of abandoning his patent at any time if he considers that it is no longer profitable, thus allowing the invention to fall into the public domain.
- 29. As regards the setting up of an industrial property office, the following factors might usefully be taken into account.
- 30. The first is the fact that it is perfectly permissible for a number of States having uniform industrial property laws to set up a joint office which will act as the industrial property office for each of them. Examples of this are the <u>African Intellectual Property Organization</u> (OAPI), which takes care of the industrial property administration for 15 African countries and has its headquarters in Yaoundé (Cameroon), the <u>European Patent Organization</u> with the European Patent Office, which has been entrusted with the procedure for the grant of patents with effect in at present 18 European countries and whose headquarters are in Munich (Germany) and the <u>African Regional Industrial Property Organization</u> (ARIPO) which, under its Protocol on Patents and Industrial Designs, with, at present, 11 Contracting States, has established a system for the processing of applications and the granting of patents and the registration of industrial designs by the Office of ARIPO, in Harare, Zimbabwe, on behalf of designated Contracting States.

[International Conventions and Treaties]

31. Three treaties are of particular importance for the international protection of inventions: the Paris Convention for the Protection of Industrial Property, the Patent Cooperation Treaty (PCT) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (the TRIPS Agreement). Since 1985, WIPO has been preparing for the conclusion of the Patent Law Treaty.

[The Paris Convention]

32. The <u>Paris Convention</u>, which at present (status as at February 1, 1997) has 140 member States forming the "Paris Union," contains the basic rules for the international protection of inventions. It provides for the national treatment principle, which has the effect that, in all member States, national applicants and applicants from other Paris Union member States have the same rights. Moreover, the Paris Convention provides for the right of priority, which means that the date of the first application in one member State will generally be regarded as the date on which the application was filed in any other member State, if the subsequent applications are filed within 12 months from the first filing.

[The Patent Cooperation Treaty (PCT)]

33. The <u>Patent Cooperation Treaty</u> (PCT) considerably facilitates the grant of patents in the participating countries. Under this Treaty, it is possible to file one single international patent application, valid for the States designated, which is subject to an <u>international search</u> concerning relevant prior art and is <u>internationally published</u> together with the <u>international search report</u>. Under certain conditions, an international preliminary examination regarding requirements for patentability (novelty, inventive step and industrial applicability) can also be carried out. By these measures, the national granting of patents in participating States and the evaluation of the validity of such patents is facilitated. The Patent Cooperation Treaty at present (status as at February 1, 1997) has 89 member States, including not only industrialized countries but also developing countries.

[The TRIPS Agreement]

34. The TRIPS Agreement, which was concluded in the Uruguay Round of Multilateral Trade Negotiations in the framework of the General Agreement of Tariffs and Trade (GATT) in 1994 provides, *inter alia*, for minimum standards for the protection of patents. Its coverage includes patentable subject matter, rights conferred and exceptions thereto, enforcement, use without the authorization of the owner of the patent and term of protection. The TRIPS Agreement makes it mandatory for its Members to comply with the substantive provisions of the Paris Convention.

[The Patent Law Treaty]

- 35. Since 1985, WIPO has been preparing for the conclusion of a Patent Law Treaty. From June 3 to 21, 1991, a first part of a Diplomatic Conference aimed at harmonizing a number of substantive provisions of national and regional patent laws took place in The Hague (Netherlands). Due, *inter alia*, to other recent developments in the field of industrial property at the international level, the Consultative Meeting for the further preparation of the Diplomatic Conference, held in Geneva from May 8 to 12, 1995, recommended to the Direction General of WIPO to seek decisions from the September 1995 session of the General Assembly of WIPO and the Assembly of the Paris Union on another approach for promoting harmonization, particularly of matters concerning the formalities of national and regional patent applications including matters such as signatures, changes in names and addresses, change in ownership, correction of mistakes, observations in case of intended refusal, representation, address for service, contents of at least the request part of the application and use of model international forms, and that two or more sessions of a committee of experts to discuss such matters should be organized by WIPO before the September 1997 sessions of the said Assemblies.
- 36. In September 1995, the General Assembly of WIPO and the Paris Union approved the recommendations of the Consultative Meeting.

- 37. During the first session of the Committee of Experts on the Patent Law Treaty, which took place in Geneva from December 11 to 15, 1995, there was broad support among the delegations and representatives for the inclusion of provisions relating to the filing date of an application and unity of invention.
- 38. The International Bureau prepared provisions on the filing date and unity of invention and presented them to the second session of the Committee of Experts, which was held in Geneva from June 17 to 21, 1996.
- 39. During the second session, comments were made on these two new topics. With the exception of a reservation by four delegations concerning the inclusion of provisions on unity of invention, there was support for the draft articles and rules dealing with those topics.
- 40. Also during the second session, the Committee of Experts agreed to recommend that an article on the recordal of licensing agreements should be included in the draft Treaty.
- 41. After a full discussion, the Committee of experts agreed to recommend that the following two additional topics should be included in the next draft Treaty and Regulations in addition to the recordal of licensing agreements:
- belated claiming of priority (delayed submissions of priority claim and delayed filing of the subsequent applications), and
- restoration of rights where a time limit has been missing (including "further processing") and extension of time limits which have not yet expired but whose extension has been requested by the party concerned.
- 42. In September 1996, the General Assembly of WIPO and the Assembly of the Paris Union will be invited to approve the inclusion in the draft Patent Law Treaty of the additional topics referred to above.

[End of document]