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Contents

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Notifications

Nice Agreement

Accession to the Geneva Act (1977)

LIECHTENSTEIN

The Government of Liechtenstein deposited, on November 14, 1986, its instrument of accession to the Geneva Act of May 13, 1977, of the Nice Agreement Concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks of June 15, 1957, as revised at Stockholm on July 14, 1967.

The Geneva Act (1977) of the said Agreement will enter into force, with respect to Liechtenstein, on February 14, 1987.

Nice Notification No. 65, of November 14, 1986.

WIPO Meetings

WIPO/LAWASIA/UNDP

WIPO Regional Forum on the Judiciary and the Intellectual Property System

(Islamabad, October 5 to 9, 1986)

NOTE*

A Regional Forum of Judges on the Judiciary and the Intellectual Property System organized jointly by the World Intellectual Property Organization (WIPO) and the Judges of the Superior Courts of Pakistan, in association with the Law Association for Asia and the Western Pacific (LAWASIA) and with the assistance of the United Nations Development Programme (UNDP), was held in Islamabad, Pakistan, from October 5 to 9, 1986.

The Forum was opened by His Excellency Mr. Muhammad Khan Junejo, Prime Minister of Pakistan, who delivered the inaugural address. His Excellency Mr. Wasim Sajjad, Minister for Justice and Parliamentary Affairs was also present. An opening address was delivered by the Honorable Mr. Justice Muhammad Haleem, Chief Justice of Pakistan. Addresses were also delivered by Dr. Arpad Bogsch, Director General of WIPO, by Mr. Nie Hualing, Resident Representative a.i. in Pakistan of UNDP, and by the Honorable Mr. Justice Ian Barker, Judge, High Court of New Zealand, on behalf of the President of LAWASIA.

The participants in the Forum consisted of justices from Bangladesh, Bhutan, Canada, China, India, Malaysia, Maldives, Nepal, New Zealand, Pakistan, Sri Lanka and Thailand, a senior official of the Government of Australia, a lawyer from the United Kingdom and officials of WIPO. The list of participants follows this Note.

Discussions in the Forum were based on a number of papers on selected topics in the field of intellectual property law and practice presented by justices and lawyers from Australia, Canada, India, New Zealand, Pakistan and the United Kingdom, and on papers on the judiciary and the intellectual property system, in their respective countries, presented by justices from Bangladesh, China, India, Malaysia, Maldives, Sri Lanka and Thailand.

The Director General of WIPO made two introductory statements, one covering patents for inventions and trademarks, and the other covering copyright. In his statements, the Director General gave an outline of the typical provisions in the national laws and international treaties in the said fields of law and mentioned the typical causes of action, and the typical parties, in cases that come before the courts.

At the conclusion of the Forum, the participating justices and judges adopted the following recommendations:

"1. The Chief Justice and Justices of Bangladesh, Bhutan, China, India, Malaysia, Maldives, Nepal, Pakistan, Sri Lanka and Thailand found it of the highest professional interest to hear, from each other, of the role of the courts of their countries in the enforcement of the laws, as they exist, on patents for inventions, trademarks and copyright, to hear from their colleagues or other specialists from Australia, Canada, New Zealand and the United Kingdom about the role of the Courts of their countries in intellectual property cases, and to exchange views on the experiences of each of them.

"2. The participants noted with interest that pursuant to a recommendation of the Intellectual Property Colloquium of Judges in Asia and the Pacific, held in Sydney, in 1984, and in which some of the justices participating in the present Forum also participated, the World Intellectual Property Organization (WIPO) had started the systematic collection and publication, in its periodical *Intellectual Property in Asia and the Pacific*, of notes of cases put at its disposal by or through the courtesy of justices in the said region.

"3. The participants noted that, because of the ever-increasing ease of telecommunications, intellectual property rights require as many uniform solutions as possible at the international level with due regard to the existing legal systems, interests and traditions of their countries.

"4. The participants recommended that the World Intellectual Property Organization (WIPO) convene similar regional meetings in the future and that it examine, separately with the judiciary and other competent authorities of each country of the region, the desirability and feasibility of organizing courses or seminars for judges and lawyers of that country.

"5. Furthermore, the participants recommended that the World Intellectual Property Organization (WIPO) continue the publication of notes of cases from the courts of countries of Asia and the Pacific, and that it publish in a volume the texts of the lectures and other presentations made in this Forum.

"6. Finally, the participants recommended that the World Intellectual Property Organization (WIPO) continue to do its utmost to ensure that judges of every level in the countries of Asia and the Pacific receive, by means of contacts among themselves and with their colleagues in other countries of the world—through seminars, courses, publications and study trips—continuous and up-to-date information on the development of intellectual property law which would be useful in their efforts to render justice in this branch of law, a field that will doubtless develop at an unusually fast pace, particularly because of technological developments in communications."

* Prepared by the International Bureau of WIPO.

LIST OF PARTICIPANTS

I. Justices and Judges

Bangladesh: The Hon. Dr. Justice F.K.M.A. Munim, Chief Justice, Supreme Court; The Hon. Mr. Justice A.T.M. Afzal, Judge, Appellate Division, Supreme Court. **Bhutan:** The Hon. Mr. Justice Palijor J. Dorji, Chief Justice, High Court; The Hon. Mr. Justice Krishna Bahadur Ghalay, Judge, High Court. **China:** The Hon. Mr. Ren Jianxin, Vice-President, Supreme People's Court; Mr. Wang Zhengfa, Expert on Patent Law, Supreme People's Court. **India:** The Hon. Mr. Justice Bakhtavar Lentin, Judge, Bombay High Court; The Hon. Mr. Justice Umesh Banerjee, Judge, Calcutta High Court. **Malaysia:** The Hon. Mr. Justice M. Salleh Bin Abas, Lord President, Supreme Court; The Hon. Mr. Justice Hashim Yeop A. Sani, Judge, Supreme Court. **Maldives:** The Hon. Mr. Justice Moosa Fathy, Chief Justice, Supreme Court; The Hon. Mr. Justice Ahmed Hameed Fahmy, Judge, High Court. **Nepal:** The Hon. Mr. Justice Dhanendra Bahadur Singh, Chief Justice, Supreme Court; The Hon. Mr. Justice T.P. Rana, Judge, Supreme Court. **Pakistan:** The Hon. Mr. Justice Muhammad Haleem, Chief Justice, Supreme Court; The Hon. Mr. Justice Aslam Riaz Hussain, Judge, Supreme Court; The Hon. Mr. Justice Muhammad Afzal Zullah, Judge, Supreme Court; The Hon. Justice Dr. Nasim Hasan Shah, Judge, Supreme Court; The Hon. Mr. Justice S.A. Nusrat, Judge, Supreme Court; The Hon. Mr. Justice S. Usman Ali Shah, Chief Justice, Peshawar High Court; The Hon. Mr. Justice Ghulam Mujaddid Mirza, Chief Justice, Lahore High Court; The Hon. Mr. Justice Naimuddin, Chief Justice, Sind High Court; The Hon. Mr. Justice Ajmal Mian, Acting Chief Justice, Baluchistan High Court; The Hon. Mr. Justice Saad Saood Jan, Judge, Lahore High Court; The Hon. Mr. Justice Zahoorul Haq, Judge, Sind High Court. **Sri Lanka:** The Hon. Mr. Justice S. Sharvananda, Chief Justice, Supreme Court; The Hon. Mr. Justice K.A.P. Ranasinghe, Judge, Supreme Court. **Thailand:** The Hon. Mr. Justice Sophon Ratanakorn, Senior Judge, Supreme Court; The Hon. Mr. Justice Praesert Boonsri, Deputy Chief Justice, Criminal Court.

II. Speakers

Speakers from Pakistan: The Hon. Justice Dr. Nasim Hasan Shah, Judge, Supreme Court; The Hon. Mr. Justice Zahoorul Haq, Judge, Sind High Court; The Hon. Mr. Justice Ajmal Mian, Acting Chief Justice, Baluchistan High Court.

Speakers from Other Countries: The Hon. Mr. Justice U. Banerjee, Judge, Calcutta High Court, India; The Hon. Mr. Justice Ian Barker, Judge's Chambers, High Court, New Zealand; Mr. Patrick Brazil, Secretary, Attorney General's Department, Australia; The Hon. Mr. Justice F. Chevalier, Cour d'Appel du Québec, Canada; Mr. Michael Fysh, Barrister-at-Law, United Kingdom.

III. Forum Organizing Officials

Secretary of the Forum: Mr. M.A. Latif, Registrar, Supreme Court of Pakistan. *Deputy Secretary of the Forum:* Mr. Ashiq Hussain, Secretary to the Chief Justice of Pakistan. *Protocol:* Mr. Aziz Ahmad, Protocol Officer, Supreme Court of Pakistan.

IV. WIPO

Dr. Arpad Bogsch *(Director General)*; Mr. Lakshman Kadirgamar *(Director, Development Cooperation and External Relations Bureau for Asia and the Pacific)*; Mrs. Indrani Pike-Wanigasekara *(Special Assistant, Office of the Director General)*; Mr. Maqbool Qayoom *(Senior Program Officer, Development Cooperation and External Relations Bureau for Asia and the Pacific)*.

WIPO Permanent Committee on Patent Information (PCPI)

Tenth Session
(Geneva, September 1 to 5, 1986)

NOTE*

The WIPO Permanent Committee on Patent Information (hereinafter referred to as "the Permanent Committee") held its tenth session in Geneva from September 1 to 5, 1986.[1]

Thirty-two members of the Permanent Committee were represented at the session (Australia, Austria, Brazil, Cameroon, Canada, China, Czechoslovakia, Democratic People's Republic of Korea, Denmark, Finland, France, German Democratic Republic, Germany (Federal Republic of), Ghana, Hungary, Italy, Japan, Madagascar, Netherlands, Norway, Poland, Portugal, Republic of Korea, Soviet Union, Sweden, Switzerland, United Kingdom, United States of America, Viet Nam, Zambia, European Patent Office (EPO), African Regional Industrial Property Organization (ARIPO). The United Republic of Tanzania was represented by an observer. The Commission of the European Communities (CEC), the International Patent Documentation Center (INPADOC), the Patent Documentation Group (PDG) and the publishers of the journal *World Patent Information* were also represented by observers. A list of participants follows this Note.

Among the topics discussed by the Permanent Committee were the following:

Consideration of the Reports of Sessions of the PCPI Working Groups in 1986

The Permanent Committee reviewed the activities of its Working Groups in 1986 on the basis of the reports of their sessions held in 1986. The Permanent Committee approved the actions taken by its Working Groups on the tasks that it had assigned to them, and congratulated the Working Groups for the work that they had done.

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* Prepared by the International Bureau.

[1] For the note on the preceding session, see *Industrial Property*, 1985, p. 351.

Recommendations to the Permanent Committee Formulated by the PCPI Working Groups in 1986

The Permanent Committee reviewed the recommendations made by the PCPI Working Groups in 1986 and took action on them. These recommendations relate, among others, to the following questions:

- IPC revision requests;
- inventory of computerized patent search systems;
- guidelines for the organization of search files based on the IPC;
- revision of Standard Code for Identification of Different Kinds of Patent Documents (WIPO Standard ST.16);
- name indexes for patent documents;
- reduction of volume of priority documents as filed with industrial property offices;
- coded character sets to be used in the exchange of machine-readable records;
- a standard dealing with the filing of patent applications in Optical Character Recognition (OCR) format;
- revision of INID Code (WIPO Standard ST.9);
- revision of training course curricula.

Consideration of Tasks Assigned to the International Bureau in 1986

The Permanent Committee approved the report prepared by the International Bureau on the various tasks assigned to it in 1986. Taking note of the Annual Technical Reports for 1985 prepared by 30 PCPI members and submitted in 1986, the Permanent Committee encouraged its members to continue their efforts to submit such reports in 1987 also, at the same time adhering to the Guidelines which it had formulated in that respect.

The Permanent Committee noted that INPADOC's data base contained, on June 27, 1986, information on a total of 12,867,380 patent documents. In respect of the CAPRI System (the Computerized Administration of Patent Documents Reclassified According to the International Patent Classification), the Permanent Committee noted that the total of subclasses covered was 603 out of a total of 614, and that it was very likely, in view of further commitments taken, that the said project might be brought to a successful conclusion by the end of 1988.

In respect of the *WIPO Handbook on Patent Information and Documentation*, the Committee noted that a further set of updating pages would be published in 1986 incorporating decisions taken at its present session. In respect of the *Journal of Patent Associated Literature (JOPAL)*, it noted that issues had continued to be published by the International Bureau at monthly intervals, that the cumulative index of 1985, containing approximately 11,500 entries, had been published in April 1986 and that several offices were testing the possibility of using the *JOPAL* machine-readable data available at the International Bureau for their own automated search procedures.

Revision of the PCPI Program for the 1985-1986 Biennium

The Permanent Committee adopted the *revised* PCPI Program for the 1986-1987 biennium. That program contains a total of 42 tasks. Furthermore, the Committee agreed that the five Working Groups established for 1986 be continued in 1987 with unchanged mandates.

Simplification of the Structure and Streamlining of the Procedures of the WIPO Permanent Committee on Patent Information (PCPI)

After consideration of the proposals for streamlining made by the Director General, the following conclusions were formulated:

(a) The Permanent Committee was of the opinion that it should be given another opportunity to pronounce itself on these proposals before the competent Governing Bodies pronounce themselves on such proposals.

(b) If it were given such opportunity, the Permanent Committee would also take a position on the question whether technical cooperation in the fields of trademarks and industrial designs should be organized.

(c) The Permanent Committee, in its next session, would then consider, among others, the following:

(i) the objectives of the PCPI should be revised to the extent found necessary, on the basis of an evaluation of its past work and the anticipated priorities in the future;

(ii) a policy for the further development of the IPC should be examined;

(iii) an increased opportunity for the heads of offices should be created for meeting in the Permanent Committee at least once every two years—and, in between, if there is urgency—preferably during, rather than before, the sessions of the Governing Bodies;

(iv) an intermediary evaluation and steering organ, between the Permanent Committee and standing or *ad hoc* working groups, should be maintained;

(v) the subdivision of work among these working groups as proposed by the Director General, should be positively considered, including the emphasis laid on exchange of patent information and the proposals concerning developing countries; the Director General should be invited to propose means for facilitating the travel of certain at least of the developing country delegates to Geneva.

(d) The Permanent Committee should, in its next session, to be held in approximately six months, be presented with new proposals by the Director General

which he would prepare with the help of consultants. He should invite all members of PCPI to make suggestions in writing by November 1, 1986.

LIST OF PARTICIPANTS**

I. States

Australia: P.A. Smith. **Austria:** J. Fichte. **Brazil:** M.F.M. Arruda; C.R. Treiguer; A.R. Cavalcanti. **Cameroon:** F.-X. Ngoubeyou; W. Eyambe. **Canada:** D.L. Satherstrom. **China:** Huang Kunyi; Qiao Dexi. **Czechoslovakia:** M. Kopča; M. Fořtová. **Democratic People's Republic of Korea:** Yu Choi Kim; Yong Son Kwon; Myeung Jin Youn. **Denmark:** H.I. Rasmusseo; S.T. Simonsen. **Finland:** E. Häkli. **France:** M. Verderosa; A. de Pastors. **German Democratic Republic:** H. Konrad; H.-J. Borchert. **Germany (Federal Republic of):** E. Häusser; A. Wittmann. **Ghana:** A.M. Abdullah. **Hungary:** G. Pusztai; J. Bobrovszky. **Italy:** M. Morandi. **Japan:** A. Nakamura; Y. Masuda. **Madagascar:** R.G. Razafimahefa. **Netherlands:** S. de Vries. **Norway:** P.E. Lillejordet. **Poland:** Z. Sobczyk. **Portugal:** J. Mota Maia. **Republic of Korea:** J.-W. Noh; T.-C. Choi. **Soviet Union:** V.I. Blinnikov; B.P. Timokhin. **Sweden:** L.G. Björklund; J.-E. Bodin. **Switzerland:** J.-L. Comte; K. Grünig. **United-Kingdom:** T.W. Sage; G.K. Lindsey. **United States of America:** W.S. Lawson; T. Lomont. **Viet Nam:** Nguyen Van Vien. **Zambia:** A.R. Zikonda.

II. Member Organizations

African Regional Industrial Property Organization (ARIPO): J.H. Ntabgoba. **European Patent Office (EPO):** R. Baré; E. de Bundel.

III. Observer State

United Republic of Tanzania: S. Asman.

IV. Observer Organizations

Commission of the European Communities (CEC): H. Bank. **International Patent Documentation Center (INPADOC):** G. Quarda. **Patent Documentation Group (PDG):** P. Ochsenbein. **World Patent Information (WPI):** V.S. Dodd.

V. Officers

Chairman: A. Wittmann (Germany (Federal Republic of)). *Vice-Chairmen:* V.I. Blinnikov (Soviet Union); P.A. Smith (Australia). *Secretary:* P. Claus (WIPO).

VI. International Bureau of WIPO

A. Bogsch *(Director General);* L.E. Kostikov *(Deputy Director General);* P. Claus *(Director, Classifications and Patent Information Division:* B. Hansson *(Head, Patent Classification Section, Classifications and Patent Information Division);* P. Higham *(Head, Patent Information Section, Classifications and Patent Information Division);* R. Andary *(Head, Special Projects and Developing Countries Section, Classifications and Patent Information Division);* K.-P. Wittig *(Head, Technical Information and Developing Countries Services Section, Classifications and Patent Information Division).*

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

WIPO

Patent and Trademark Information Fair

(Geneva, September 8 to 10, 1986)

NOTE*

The number of data bases devoted wholly, or to a large part, to patent information, their coverage, and the methods of access thereto is continually increasing. This development arises in two ways. Firstly, industrial property offices are becoming ever more aware that the efficient administration of patents requires the use of modern techniques in order to cater for the steadily increasing number of patent applications and of published patent documents. Secondly, industry is generally recognizing the usefulness of patent information for research and development activities and for market analysis and forecasting.

The administration of trademarks is being more and more assisted by the use of computer systems. Such use, as in the case of the administration of patents, extends not only to the keeping of records during the processing of applications for registration but also to the search of prior registrations. The task of searching involves the need to investigate phonetic similarities and, in some instances, the need to make figurative comparisons. The thrust of the present-day development of computer systems is directed towards solving these problems in a convenient and cost-effective way. It is certain that computers will be used even more in the future. Indeed, the long-term development of the industrial property system very largely depends thereon.

In order to provide up-to-date information and guidance in the use of patent and trademark data bases, WIPO organized a Patent and Trademark Information Fair in Geneva, at the International Conference Center, from September 8 to 10, 1986. The theme of the Fair was the role of computers in industrial property offices in their tasks concerning the administration of patents and trademarks.

The exhibitors consisted of nine industrial property offices—those of Brazil, China, European Patent Office,

* Prepared by the International bureau.

France, Germany (Federal Republic of), Spain, Sweden, Switzerland and the United Kingdom—and of the following 14 organizations in addition to WIPO: Bertelsmann Informationsservice GmbH, Carl Heymanns Verlag, Chemical Abstracts Service, Compumark, Derwent Publications Ltd., Dialog Information Services Inc., INPADOC, Mead Data Central International, Pergamon-Infoline Ltd., Research Publications Ltd., SDC Information Services Inc., Skriptor Juris AB, Télésystèmes-Questel S.A., Thomson and Thomson.

More than 450 visitors attended the Fair. They were able to use computer data bases located in many European countries, in North and in South America and were given up-to-date information concerning developments in other regions of the world. The visitors were able to discuss with the world's leading experts the role that the services available could play in their own field of interest.

International Patent Cooperation (PCT) Union

Committee for Technical Cooperation (PCT/CTC)

Ninth Session
(Geneva, September 1 to 5, 1986)

NOTE*

The PCT Committee for Technical Cooperation held its ninth session at the headquarters of WIPO jointly with the tenth session of the WIPO Permanent Committee on Patent Information.[1] Twenty States and one intergovernmental organization, members of the Committee, were represented, with observers from eight countries, two international governmental organizations and three international non-governmental organizations. A list of participants follows this Note.

The Committee discussed certain questions concerning the minimum patent documentation as defined in PCT Rule 34.1 and took the following decisions:

(a) It approved the inventory of patent documents 1920 to 1985 according to PCT Rule 34.1*(b)*(i) and (ii).

(b) It decided, in respect of the inventories of sorted collections of patent documents according to PCT Rule 34.1*(c)*(vi), that:

(i) the regular updating of the machine-readable data file created by the International Bureau should be discontinued;

(ii) the cooperating offices nevertheless should continue to forward their data to the International Bureau; and

(iii) the International Bureau could continue to make copies of the data available to it at cost to any office so requesting.

(c) It decided that, notwithstanding the withdrawal of cooperation by Chemical Abstracts Services (CAS), the project for preparing inventories of English-language abstracts of patent documents according to PCT Rule 34.1*(e)* be pursued.

(d) It decided that the proposal by Hungary to amend the list of periodicals established under PCT Rule 34.1*(b)*(iii) so as to take into account the rapidly evolving field of biotechnology be studied in detail.

LIST OF PARTICIPANTS**

I. Member States

Australia: P.A. Smith. **Austria:** J. Fichte. **Brazil:** C.R. Treiguer; A.R. Cavalcanti. **Cameroon:** W. Eyambe. **Democratic People's Republic of Korea:** Yong Son Kwon; Yu Choi Kim; Myeung Jin Youn. **Denmark:** H.I. Rasmussen; S.T. Simonsen. **Finland:** E. Häkli. **France:** M. Verderosa; A. de Pastors. **Germany (Federal Republic of):** A. Wittmann. **Italy:** M. Morandi. **Japan:** A. Nakamura; Y. Masuda. **Madagascar:** R.G. Razafimahefa. **Netherlands:** S. de Vries. **Norway:** P.E. Lillejordet. **Republic of Korea:** J.-W. Noh; T.-C. Choi. **Soviet Union:** V.I. Blinnikov; B.P. Timokhin **Sweden:** L.G. Björklund; J.-E. Bodin. **Switzerland:** K. Grünig. **United Kingdom:** G.K. Lindsey. **United States of America:** W.S. Lawson; T.F. Lomont.

II. Member Organization

European Patent Office (EPO): R. Baré; E. de Bundel.

III. Observer States

Czechoslovakia: M. Kopča; M. Fořtová. **German Democratic Republic:** H. Konrad. **Ghana:** A.M. Abdullah. **Poland:** Z. Sobczyk. **Portugal:** J. Mota Maia. **United Republic of Tanzania:** S. Asman. **Viet Nam:** Nguyen Van Vien; Vu Huy Tan. **Zambia:** A.R. Zikonda.

IV. Observer Organizations

African Regional Industrial Property Organization (ARIPO): J.H. Ntabgoba. **Commission of the European Communities (CEC):**

* Prepared by the International Bureau.

[1] A note on the tenth session of the PCPI appears below; for the note on the eighth session of the PCT/CTC, see *Industrial Property*, 1985, p. 350.

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

H. Bank. **International Patent Documentation Center (INPADOC):** G. Quarda. **Patent Documentation Group (PDG):** P. Ochsenbein. **World Patent Information (WPI):** V.S. Dodd.

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General Studies

On Counterfeiting and How to Combat It

E. ARACAMA ZORRAQUÍN*

"That's the nature of the counterfeit trade these days: Perhaps the world's fastest-growing and most profitable business, it involves big dollars and, all too often, the possibility of quiet death."

Thomas C. O'Donnell and others.[1]

I.

In the last 10 or 15 years counterfeiting has re-emerged as a serious phenomenon and as a real offense of economic sabotage[2] affecting the whole of international industry and commerce.

At the outset the victims were luxury goods, such as Chanel perfumes, Vuitton bags and suitcases, leather goods by Gucci and Cartier watches. This time the counterfeit goods are also chemical compounds used in agriculture, cosmetics and toiletries, medicines and pharmaceutical products, petroleum derivatives and miscellaneous plastic goods. Other articles subject to counterfeiting are motor vehicle parts and accessories and aircraft and helicopter components, fashion and sports garments and footwear, hand tools, display units for computers, fuses, batteries, video and audio discs and tapes, sports equipment, electronic video games, toys, jewelry, etc.[3] In a word everything, as we can see, in a broad spectrum that harms international trade and industry and fills the consumer with apprehension and misgiving.

In order to illustrate the above better and highlight the consequences of this trade in forgeries, Rakoff and Wolff[4] give us the following examples:

— It has happened that counterfeit brake components have been the cause of car accidents and the resulting deaths.

— Counterfeit vaccines against polio have been administered to unsuspecting patients.

— In May 1978, the U.S. Federal Food and Drug Administration took off the market 357 heart-pumps used in 266 hospitals of the country. This step was made necessary by the belief that the pumps feeding the intra-aortic balloons, costing 20,000 dollars each, which help maintain the heartbeat of patients during open-heart operations, contained counterfeit components worth approximately eight dollars each.

— In February 1977, the Federal Aviation Administration discovered and ordered the immediate withdrawal of counterfeit fire detection and control systems in motors fitted to Boeing aircraft, which affected a possible total of up to 100 Boeing 737 systems. A number of companies had marketed the systems with forged Boeing labels and serial numbers, leading client airlines to believe that the parts had been certified safe by FAA representatives. The truth of the matter, however, was that the systems had not been approved, and when the FAA and Boeing engineers inspected the counterfeit products they found inferior workmanship, poor-quality materials and inadequate safety standards.

— The American Medical Association recently called attention to counterfeit drugs that had imitated the size, shape and color of amphetamines and tranquilizers, and often displayed counterfeit trademarks. The counterfeit drugs are thought to be responsible for at least 12 deaths, including that of a 17-year-old youth from New Mexico who went into a coma after having taken counterfeit biphetamines. A number of other victims suffered paralysis associated with the counterfeit drugs.

The commercial counterfeiters were bound to succumb to the temptation to defraud the greatest "consumer" of all, namely, the U.S. Defense Department, and to a certain extent to compromise national defense and security. To give some recent examples:

— In 1976, counterfeit transistors were discovered that were intended for a test flight of the American space shuttle.

— In 1978, counterfeit parts were discovered that were intended for use in various important defense projects such as the F-4 fighter plane and the Chapanel and Lance missile systems.

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* Attorney at law; Professor at the Argentine Catholic University and the University of Buenos Aires; Honorary President of the Inter-American Association of Industrial Property (ASIPI) and Past President of the International Association for the Advancement of Teaching and Research in Intellectual Property (ATRIP).

[1] Thomas C. O'Donnell and Elizabeth Weiner, New York, Hazel Bradford, Washington, Amy Borras, London, and Elliot Dorinda, Taiwan: "The Counterfeit Trade," *International Business Week*, December 16, 1985, p. 48.

[2] It is described thus by D.T. Carlisle in "Protection Against Piracy—A General View," *Industrial Property*, 1982, pp. 311 *et seq.*

[3] The foregoing is merely a selection from the list given by the GATT Group of Experts on Trade in Counterfeit Goods—document MDF/W/19 of January 10, 1985, Annex I.

[4] Jed S. Rakoff and Ira B. Wolff, "Commercial Counterfeiting: The Inadequacy of Existing Remedies," *Trademark Reporter*, Vol. 73, September-October 1983, No. 5, pp. 501, 502 and 503.

— According to officials of the Bell Helicopter Company, millions of dollars' worth of dangerously substandard counterfeit Sikorsky and Bell helicopter parts had been sold to NATO allies and to American helicopter fleets. The suspect items, including critical flight components such as transmission parts and landing-gear components are believed to have been fitted to at least 608 helicopters belonging to the armed forces of the United Kingdom, Germany (Federal Republic of), France, Belgium and at least five other allies of the United States of America. According to the officials of the Bell Helicopter Company, the counterfeit parts may have been responsible for a number of helicopter accidents in the United States itself.

The United States is, of course, not alone in having suffered from the trade in counterfeit goods. According to the same authors,[5] the Kenyan coffee harvest, one of the mainstays of the country's economy, was virtually destroyed in 1979-1980 by the use of counterfeit (and defective) agricultural chemicals bearing the forged label of Chevron, a widely respected American manufacturer.

It is very difficult to assess the scale of counterfeiting, but authors generally put it at thousands of millions of dollars.[6] Thrierr, for instance,[7] mentions that the Swiss watchmaking industry suffers damage up to one billion French francs annually. The damage sustained by the French perfume industry exceeds 500 million French francs. According to Rakoff and Wolff,[8] American firms have lost sales worth 16 billion US dollars on account of forgeries.

The cost is no lower in copyright. Davies, for instance,[9] mentions that the value of video piracy in 1984 attained the sum of 2,000 million US dollars and that, whereas this represented only 10% in value of the legitimate audio market, almost half the prerecorded music cassettes sold in the world were pirate copies.

Moreover, this is thought to be no more than the tip of the iceberg: one has also to count the number of jobs that are lost because counterfeiting has lessened the economic activity of the countries that fall victim to it[10] and also the loss of tax revenue from the infringers' evasion.

What is the reason for this re-emergence of counterfeiting?

Rakoff and Wolff[11] consider the subject from the viewpoint of the counterfeiter, and point out that three aspects in particular stand out:

(a) The growing sophistication and organization of commercial counterfeiters.

(b) The growing internationalization of its effects.

(c) The enormous increase in the scale, scope, diversity and success of their efforts. Having started as a sort of backyard business, it has become an enterprise with the most sophisticated technology at its disposal; this is illustrated by the case quoted by O'Donnell and others[12] of a Taiwan firm which, having seen a new type of telephone designed by the American Telephone and Telegraph Corporation on display in an exhibition held in Las Vegas in 1983, copied, manufactured and marketed it before the American telecommunications giant did so.

To these technical factors have to be added an economic factor and a cultural factor. The economic factor is due to the excellent results of the copying trade, in that those who engage in it do not have to pay for research and development, use cheaper materials, do not incur advertising expenses for the development of markets, do not pay taxes, and so on. Then there is the cultural factor personified by the status seekers so well described by Packard,[13] who acquire copies to avoid paying the cost of the original.

II.

After having pointed to the importance of counterfeiting, one must, before proceeding further, establish what is meant by it.

Thrierr[14] mentioned that, alongside the classical notions of falsification *(contrefaçon)*, unlawful imitation and "passing off," recent years have seen the appearance of expressions such as piracy, counterfeiting and counterfeit goods, which call for some doctrinal elaboration.

For its part, piracy would appear to embody two quite distinct situations:

(a) The first consists in taking advantage of the first-to-file system against the owner of the mark. That entails registering, before the person entitled to it does so, a mark that had acquired widespread renown through use.

(b) The second situation consists in copying, down to its smallest details, the outward appearance of the product of a third party, and to affix on the copy either

[5] Jed S. Rakoff and Ira B.Wolff, *op. cit.* in note 4, p. 503, and Thomas C. O'Donnell and others, *op. cit.* in note 1, p. 50.

[6] GATT: "Trade in Counterfeit Goods," document MDF/W/19, January 10, 1985, p. 15, paragraph 30(i).

[7] Alain Thrierr, "Piracy of Trademarks—A Matter for States," *Industrial Property*, 1982, p. 323, note 11.

[8] Rakoff and Wolff, *op. cit.* in note 4, p. 500.

[9] Gillian Davies, "Audio and Video Piracy and Counterfeiting—the Facts," paper submitted to the annual meeting of the International Association for the Advancement of Teaching and Research in Intellectual Property (ATRIP), Geneva, September 16 to 18, 1985, p. 1.

[10] Thomas C. O'Donnell and others (*op. cit.* in note 1, p. 52) mention that, according to the U.S. Department of Commerce, 750,000 jobs have been lost on account of counterfeiting.

[11] Rakoff and Wolff, *op. cit.* in note 4, p. 498.

[12] Thomas C. O'Donnell and others, *op. cit.* in note 2, p. 51.

[13] Vance Packard, "The Status Seekers," David Mc Kay, loc. (1961).

[14] Alain Thrierr, *"Les aspects actuels de la contrefaçon de marques."* Paper submitted to the annual meeting of ATRIP, *op. cit.* in note 9.

the mark or some other distinctive sign that serves to identify the authentic product, in such a way that the authentic product and the copy can be confused.

This second situation is the one constituted by counterfeiting, which is nothing other than the outright reproduction of another's product.

Accordingly, Thrierr goes on to say, the concept of piracy is distinguished from the counterfeiting and imitation of trademarks by the extent to which it relates to the presentation of the product as a whole, of which the trademark admittedly represents an element of prime importance without, however, being the only one to be taken into consideration.

In other countries the concept of counterfeiting would appear to denote the mere affixing of a counterfeit mark. This, for instance, is what happens in the United States of America, where the piracy concept applies when a licensee manufactures goods and affixes the licensed trademark to them without regard to restrictive contractual clauses.

Nevertheless, the majority of the authors consulted define counterfeiting in the same sense of copies manufactured, as Davies says,[15] to look as similar to legitimate ones as possible, including duplication of the trademark or logo of the original producer.

In approximate terms, Gielen[16] defines counterfeiting as "the unauthorized use (including copying or quasi-copying) of a product, model, design, special form of writing or any other thing protected by an industrial or commercial property right or by the principles of civil liability, passing off or unfair competition."

For the General Agreement on Trade and Tariffs (GATT) Group of Experts on Trade in Counterfeit Goods,[17] "the term is taken to refer to goods which have been in some way copied without authority and where this copying has been done with a view to deceive or defraud by passing the copy as original or genuine." According to the same document, "the essential feature of counterfeiting... is the attempt to pass goods as having been produced by a person other than the actual producer."

For Walker,[18] counterfeiting involves false reproductions of registered marks made in such a way that the counterfeits, on visual inspection, are often virtually undistinguishable from the legitimate products. Later,[19] he defines commercial counterfeiting as being the practice of affixing a false mark on a commercial product, usually in conjunction with imitative packaging and labelling, and to put the false article on sale as if it were the product of the owner of the mark.

For Blynn,[20] counterfeiting consists in "the use by a person not authorized to do so of an identical mark on an identical product, in such a way that the authentic product cannot be differentiated from the unauthentic one under normal circumstances of purchase or use."

Finally, the International Association for the Protection of Industrial Property (AIPPI)[21] points out that at present we are witnessing the development of a real industry of counterfeiting by slavish or near-slavish reproduction of marks, and also by the slavish copying of the presentation of products bearing renowned marks, copying of packages, references, guarantee certificates, indications of source, etc.

On the basis of the above conceptions, we may say that counterfeiting is the copying in its entirety of another's product and of his marks, designs, packages, references, guarantee certificates, indications of source, etc., perpetrated by an enterprise at the national and international level with a view to passing its own products off as being from elsewhere, with as an integral feature the three main classical features of counterfeiting, namely:

(a) totality, being the complete reproduction of the other person's product and his marks, indications of source, designs, etc.;

(b) corporateness, being the commission of the act by an actual enterprise with abundant resources and sophisticated technology;

(c) internationality, in view of the fact that counterfeiting occurs primarily outside national frontiers.

Accordingly, counterfeiting, being at the outset a Protean creature, a cloud that is continually taking and changing form, has, as O'Donnell and others[22] put it, a hierarchy of its own. That hierarchy begins with the true counterfeit products, which resemble the original to the extent possible and make use of the same mark. Then there are the "lookalikes" or "knock-offs," which duplicate the original but bear a different name or mark. After these come reproductions, which are very close, but not exact copies. And finally, at the bottom of the pile, imitations, which are cheap, unconvincing copies that do not deceive anyone.

All of them, however, possess to a greater or lesser degree the potential for deceiving or defrauding with the harm that goes with it, affecting the creator of the authentic product, the consumer, the country that falls victim to the marketing of the counterfeit and the country that produces it.

The creator of the authentic product is affected in that he is deprived of sales of his product, and his

[15] Gillian Davies, *op. cit.* in note 9.

[16] Charles Gielen, "The Repression of Counterfeiting." Paper submitted to the *"Journées d'étude"* of the International League for Competition Law, held in Wiesbaden (Federal Republic of Germany) from September 26 to 29, 1985.

[17] "Trade in Counterfeit Goods," GATT document MDF/W/19 of January 10, 1985, p. 10.

[18] W.N. Walker, "A Program to Combat International Commercial Counterfeiting." *Trademark Reporter*, Vol. 70, March-April 1981, No. 2, p. 117.

[19] W.N. Walker, "The Evolution and Status of the International Anticounterfeiting Code," *Industrial Property*, 1982, No. 11, p. 325.

[20] Gury M. Blynn, "The Proposed Trademark Counterfeiting Act of 1983, Not So Fast Mister," *Trademark Reporter*, Vol. 73, September-October 1983, No. 5, p. 548.

[21] AIPPI Yearbook 1985-III, p. 380.

[22] Thomas C. O'Donnell and others, *op. cit.*, p. 49.

business is put at risk. Also, as Thrierr[23] puts it, in that trade in the counterfeit "vulgarizes" his marks and dilutes their appeal, quite apart from prejudicing his reputation and ruining his image owing to its inferior quality, being as it is sometimes unsuitable for use and a danger to health, security or the environment.

The consumer is affected not only because he is deceived, but also because his expectations are disappointed, the necessary transparency of the market is obscured and he is deprived of all security.

The country that falls victim to the traffic is affected, because its economy becomes confused, it is deprived of tax revenue, its unemployment increases and uncertainties are created.

The country that produces it is affected because, when it acquires the reputation of producing and exporting counterfeit merchandise, its reputation inevitably suffers; this is what has happened to several countries that are generally known as centers of pirate production.

III.

In view of the growing importance and the inherent risks of counterfeiting, it would be interesting to establish whether our legislation is sufficiently integrated to meet the demands of fair trading. Before doing so, it is important to know what has been done in other countries, what protection already exists, and what protection is being worked on at the international level.

A

Carlisle[24] makes it clear that the problems counterfeiting poses are largely (though not exclusively) practical rather than legal ones, and that one principle remains constant, namely, the principle according to which protection against piracy is not a straightforward legal exercise of bringing an infringement action, but rather a practical exercise that involves stopping the offending activity.

If that is the case, it seems appropriate to mention the existence, at the international level, of a number of firms specialized in the detection of counterfeit goods. We could mention the following among them:

Commercial Trademark Services (CTS) established in Hong Kong in 1969 to combat counterfeiting; its services cover Hong Kong, Taiwan, the Philippines, Singapore, Thailand, Malaysia and San Francisco.

Carratu International, with branches in South Africa and the United States of America.

Counterfeiting Intelligence Bureau (CIB), set up on the initiative of the International Chamber of Commerce to investigate and endeavor to prevent the counterfeiting of marks, "trade-dress," patents, copyright and industrial designs.

At another level, but still with the purpose of combating counterfeiting, we could mention the following:

The European Association of Industries of Branded Products (AIM) which represents more than 1,600 manufacturers and has national sections like the Deutsche Markenverband in the Federal Republic of Germany or the Dutch Stichting Het Merckartikel.

The International Anticounterfeiting Coalition, Inc., of the United States of America.

The Anticounterfeiting Group of the United Kingdom.

All of the above have shown themselves to be particularly active in the fight against counterfeiting.

In other areas of activity, which are of more scientific character but not devoid of applicability and practical significance, mention should be made of the work of:

The International League for Competition Law (LIDC), which, at its *"Journées d'Etude"* held in Wiesbaden on September 26 and 28, 1985, concerned itself with the subject on the basis of a report by Mr. Charles Gielen of the Netherlands. The studies undertaken on that occasion were to be completed at the next Congress, which was held in Lucerne (Switzerland) in September 1986.

The AIPPI, which dealt with the subject for the first time under Question 86, entitled "Measures against Counterfeiting of Branded Goods," at its London Congress, held from June 8 to 13, 1986.

B

The seriousness of the problem is such that a number of countries have undertaken the amendment or completion of their legislation.

Portugal

In Portugal, for instance, Decree-Law No. 482/80 of October 16, 1980, introduced new controls for the purpose of solving the problem of the production of Scotch whisky manufactured in Portugal.[25]

Netherlands

On September 5, 1983, the Justice and Economic Affairs Ministries of the Netherlands set up a temporary body known as the Committee on Piracy, the task of which is to make an inventory of all aspects of the counterfeiting of goods protected by the industrial property and copyright laws, and to propose measures

[23] Alain Thrierr, *op. cit.* in note 14, p. 4.

[24] D.T. Carlisle, *op. cit.*, p. 312.

[25] D.T. Carlisle, *op. cit.* and *loc. cit.* in note 21.

to prevent counterfeiting in an effectual manner, among which changes in civil law and criminal law have been proposed.

United States of America

More noteworthy than this has been the introduction of changes to combat counterfeiting that has been observed in the legislation of the United States of America.

There the change has followed three routes:

(a) The first route was taken by the American courts towards the end of the 1960s and the beginning of the 1970s; after the judgment of the second circuit Appeal Court *In re Vuitton et Fils S.A.*[26] they began, following the pattern of an Anton Piller Order, albeit based on the Lanham Act (Section 36),[27] to allow *ex parte* seizure orders whereby marshals or, more recently, private detectives were allowed access to the premises of a counterfeiter and also the right to search for and seize (i) all the counterfeit merchandise located there, (ii) all papers relating to the distribution of that merchandise and (iii) all material and apparatus used for the counterfeiting.[28]

(b) The second route consists of the Customs Procedural Reform and Simplification Act of 1978, which introduced important changes in the remedies available to the customs authorities against the import of counterfeit goods into the United States of America; basically it consists, as mentioned by Walker,[29] in considering the counterfeit merchandise contraband and in subjecting it to all the relevant sanctions available in the customs laws of the United States of America.

Kuhn,[30] in a detailed analysis of the 1978 Law mentioned, informs us that any person who wishes to secure the protection of the law has to register his mark with the customs.

When the merchandise arrives in the United States of America, the customs authorities determine whether the mark it bears is identical to or essentially indistinguishable from a registered mark. If it is, they hold it for 30 days, and notify the owner of the mark, who may consent in writing to the import, export or entry after the mark has been removed or other action taken. If the owner of the mark does not consent, the counterfeit goods are confiscated and disposed of according to the provisions of the Law. This method of disposing of counterfeit goods, which Kuhn considers to be the most important change introduced by the Law, consists in the following: (i) handing the goods over to another Government agency, and (ii) handing them over to charitable organizations; if those efforts should fail, after a year, (iii) sale by public auction and, in the case of goods that are dangerous or a health risk, destruction.

The counterfeit goods cannot be imported, even after the mark has been removed from them, except with the consent of the owner of the mark.

In addition—and this time it is Walker[31] who mentions it—the interaction of the amendments made by the Customs Procedural Reform and Simplification Act of 1978 with other elements of customs legislation—Section 595 of the Tariff Act of 1930—affords trademark owners additional post-import remedies which, if invoked, give them an extraordinary potential for fighting against counterfeiting.

What this means is that the owner of a mark who has discovered a consignment of counterfeit imports that has entered the United States of America without having been held as provided by the amendments to the 1978 Law may report the matter to the appropriate customs officials. Under such circumstances, in view of the fact that the counterfeit merchandise has entered the United States of America illegally, Section 595 of the Tariff Act of 1930 authorizes the customs to apply for a warrant and, after it has been granted, to enter the premises on which the counterfeit material is located and seize it. Thereafter the confiscation is effected and the rules on the disposal of the merchandise are applied. Also—again according to Walker—the customs provisions go so far as to allow the material subject to confiscation to be held without such a warrant having been obtained.

(c) The third route, for its part, is represented by the enactment, at the end of 1984, of the Trademark Counterfeiting Act of 1984,[32] designed to fulfill three basic purposes: (1) to introduce for the first time criminal sanctions for those who deliberately market goods or services bearing counterfeit marks; (2) to authorize mandatory triple damages and lawyers' fees in civil actions concerning manufacture, and (3) to authorize the courts to issue *ex parte* seizure orders (granted after a hearing at which only the owner of the mark is heard) in order to seize counterfeit merchandise when it is possible to prove that the defendant would attempt to conceal or transfer them.

The Act—the main sponsors of which were Senator Charles MacMathias, Jr. and Representative Peter

[26] 606 F 2d 1,204 (2d Cir. 1979).

[27] The Anton Piller Order took its name from the case of *Anton Piller KG v. Manufacturing Processes Ltd.* (1976) R.P.C. 719 and S.—Carlisle, *op. cit.* and *loc. cit.* It is an *ex parte* measure containing the usual interim injunctions whereby a defendant is ordered to allow the plaintiff to make inspections of his, the defendant's, premises in search of relevant documents and infringing merchandise, and to divulge specified information to the plaintiff.

See *Industrial Property Laws and Treaties*, UNITED STATES OF AMERICA — Text 3-001.

[28] Cf. Joseph J. Bailon, "Seizure Orders: An Innovative Judicial Response to the Realities of Trademark Counterfeiting," *Trademark Reporter*, Vol. 73, September-October 1983, pp. 460-461.

[29] W.N. Walker, *op. cit.* in note 18, p. 127.

[30] Pella M. Kuhn, "Remedies Available at Customs for Infringement of a Registered Trademark," *Trademark Reporter*, September-October 1980, Vol. 70, No. 5, pp. 387 *et seq.*

[31] W.N. Walker, *op. cit.* in note 18, p. 127.

[32] See *Industrial Property Laws and Treaties*, UNITED STATES OF AMERICA — Text 3-002.

Rodino—is of exceptional importance to our subject because, ever since the Supreme Court declared unconstitutional the Trademark Act of 1870 and the 1876 amendment that introduced criminal sanctions, the United States of America has been one of the major countries in which sanctions of that nature do not exist.

The penalties set by the new Act are a fine of up to 250,000 dollars and imprisonment for up to five years. In the event of repetition of the offense, the fine can be up to a million dollars and the imprisonment for up to 15 years. Corporations that trade in counterfeit marks or services may be punished with a fine of up to a million dollars or, in the event of repetition, up to five million dollars.

The Act regards as counterfeit a mark "that is identical with, or substantially indistinguishable from," a mark registered for goods or services at the Patent and Trademark Office and in use, and "the use of which is likely to cause confusion, to cause mistake, or to deceive."

According to Weston,[33] one of the controversies that arose at the time of the enactment of the Act concerned the means of ensuring that it did not provide means whereby so-called "grey goods" or parallel imports could be prevented, owing to the fact that the Act was expressly inapplicable to such imports.

Another exception to the application of the Law refers to surplus goods or "overruns" produced by a licensee, in that it is understood that in such circumstances the owner of the mark has additional means of protection against breaches of contract, contractual provision for the payment of damages, the exercise of the right of inspection, and also the general remedies provided for in the Trademark Act.

According to Weston, the states of Alabama, California, Florida, Georgia and New Jersey have enacted laws against counterfeiting. The states of New York and Pennsylvania are considering legislation.

C

At the multilateral level, it is interesting to observe the work of the Commission of the European Communities headquatered in Brussels and of the World Intellectual Property Organization (WIPO) in Geneva.

(a) European Community

The Commission of the European Communities published in the *Official Journal of the European Communities* of January 22, 1985, No. C 20/7, a Proposal for a Council Regulation laying down measures "to discourage the release for free circulation of counterfeit goods."

This Regulation lays down:

(a) the conditions under which the customs authorities shall suspend the release of goods from non-member countries entered for free circulation when they are suspected of being counterfeit;
and

(b) the measures which shall be taken by the competent authorities with regard to these goods where it has been established that they are indeed counterfeit.

For the purpose of the Regulation, "counterfeit goods" means any goods bearing, without authorization, a trademark registered in accordance with Community law or the law of the Member State in which the goods are entered for free circulation.

The Regulation specifies that the owner of a trademark who becomes aware of the arrival of goods that he suspects of bearing his mark without his authorization may apply in writing to the customs authorities of the Member State or to the Commission of the European Communities for suspension of their release for a definite or indefinite period to be specified by the Member State or by the Commission itself, as appropriate.

The application in respect of one or more import operations must contain all such information as is necessary to enable the customs authorities or the Commission to take effective action and must be accompanied by proof of the trademark owners's right to protection against counterfeit goods.

The customs authorities or the Commission have to decide on the validity or invalidity of the application and may require the applicant to provide security. Applications found to be valid are to be forwarded by the customs authorities, or the Commission through the customs authorities, to the customs offices, whereupon the latter have to suspend the release and inform the importer and the trademark owner accordingly.

The criteria applied to establish whether the goods are counterfeit are the same as those used to determine whether goods produced in the relevant Member State are counterfeit.

Release of the goods is to be suspended until it is conclusively established whether or not the goods are counterfeit. In this respect, the trademark owner has to initiate further proceedings within 10 days from the date on which their release was suspended, failing which the importer may secure the release.

The Regulation specifies that the Member States shall adopt the measures necessary to allow the competent authorities to confiscate goods the release of which has been suspended, where it is established that they are counterfeit.

Confiscated goods shall be disposed of outside the channels of commerce in a manner which minimizes harm to the trademark owner. The competent authorities may also employ other methods on condition that

[33] Glen E. Weston, "The U.S. Trademark Counterfeiting Act of 1984." Paper presented to the ATRIP meeting mentioned in note 9. On the arrangement of the Law, see also Jed S. Rakoff and Ira B. Wolff, *op. cit.* in note 4, and W.N. Walker, *op. cit.* in note 18. See also the communication by the International Anticounterfeiting Coalition, Inc., of June 3, 1983.

they constitute an effective deterrent to trade in counterfeit goods.

It is interesting to note that the Regulation provides that measures other than confiscation may, in exceptional cases, be taken where they effectively deprive those responsible for the importation of the goods of the economic benefits of the transaction and constitute an effective deterrent against engaging in further transactions of the same kind.

(b) WIPO

WIPO is also working to establish measures to discourage counterfeiting. In May 1986, Dr. Arpad Bogsch, Director General of WIPO, convened the first session of the Committee of Experts on the Protection Against Counterfeiting, which was attended by participants from 37 States and 36 intergovernmental and non-governmental organizations.[34] As this was the first meeting on the subject, the scope was intentionally limited to the consideration of measures to combat counterfeiting involving the unlawful use of protected trademarks. The very detailed discussions that took place, which were based on a memorandum of the Director General, were directed to model provisions prepared by WIPO to combat acts of counterfeiting and thereby strengthen the protection attaching to a mark, to a survey of relevant provisions in existing national trademark legislation and to an analysis of the provisions of the Paris Convention that have a bearing on counterfeiting.

Additional sessions of the Committee of Experts are planned. It is intended that a revised version of the Director General's memorandum will be discussed at the next session; that memorandum will contain an expanded version of the legislative survey, a more in-depth analysis of the Paris Convention and a revised set of recommended legislative provisions. In addition, consideration will be given to holding periodic meetings among representatives of the Member States of WIPO for the exchange of information on experiences in combating counterfeiting.

IV.

The legislation of Argentina has certain legal provisions that permit a degree of repression of counterfeiting.

(a) Sections 53 and 54 of the Patent Law, No. 111 of 1864, punish the defrauding of the rights of the patentee (Section 53) and also those who cooperate therein (Section 54). The penalties are not dissuasive, however: a fine of 50 to 500 *"pesos fuertes"* or imprisonment for one to six months.

Secondary penalties are more important: loss of the counterfeit objects and compensation for any damage that may have been incurred.

Repetition of the counterfeiting (Section 55) within the five years following condemnation for the same offense results in the doubling of the penalties prescribed above.

The Law does not embody any precautionary measures, but, pursuant to Sections 207, 210, 211 and 212 of the Code of Criminal Procedure, the searching of premises in which the merchandise is thought to be located is permitted for the purpose of sequestrating a specimen of the alleged infringing object and/or discussing the process used to counterfeit it and the demand for explanations on the origin of the counterfeit product. Section 58 provides in turn that "the plaintiff may exact security from the defendant, so as not to interfere with the latter's working of the invention should he wish to proceed therewith, and, in default of such security, may apply for the working to be suspended and the articles which are the subject matter thereof to be seized, giving in his turn suitable security, if required. The seizure shall be effected with all legal formalities."

(b) Section 21 of Decree-Law No. 6673/63, ratified by Law No. 16.478, punishes with a fine of 3,000 to 100,000 pesos any counterfeiting of industrial designs, and collaboration in such counterfeiting by means of any sale, placing on sale, display, import, export or other form of marketing of counterfeit designs. The Section also punishes with the same penalty persons who hold the goods or withhold information concerning the manufacturers.

As an accessory measure, the Law provides (in Section 22) that articles or parts of articles embodying industrial designs held to be infringments are to be destroyed, even where the destruction of the design involves destroying the goods themselves, unless the registered owner of the design agrees to accept them, at cost value, on account of the damages and restoration of benefits due to him.

In the event of repetition of the offense, the penalties are doubled.

The only measure prior to the institution of civil or criminal action—according to Section 24—for the purpose of proving the commission of the unlawful act, is that whereby the owner of a design who is aware that, in a business establishment, factory or elsewhere, objects embodying a design that infringes his registration, are in industrial or commercial use, may apply to the court, giving adequate security and submitting the certificate from the Registry, for the appointment of an officer of the court to go to the place and seize a sample of the infringing goods, at the same time drawing up a detailed inventory of the available stocks of such goods.

Where the person found in possession of the goods is not the producer, he has to give the owner of the design an explanation as to their origin, in order that the actual manufacturer may be prosecuted. In the event of such an explanation being refused or proving to be false or incorrect, the person found in possession of the goods

[34] See WIPO documents PAC/CE/I/1 to 4.

may not plead good faith.

Section 25 provides in turn that both in civil actions to restrain use and also in criminal actions, the plaintiff may by separate motion demand security from the defendant so that he is not interrupted in the use of the allegedly infringing design, should the latter wish to continue using it and, in the absence of security, he may request suspension of such use and the attachment of all the allegedly infringing objects in the defendant's possession, giving adequate security on request. The security is real and is fixed by the court, which takes the interests at stake into account.

(c) Section 31 of the Law on Trademarks and Designations, No. 22.362 of 1980, provides that a penalty of imprisonment for three months to two years may be imposed in addition to a fine of one million to 150 million pesos on any persons who:

"*(a)* counterfeit or fraudulently imitate a registered trademark or a designation;

(b) use a counterfeit or fraudulently imitated registered trademark or designation, or one belonging to a third party, without his consent;

(c) offer for sale or sell a counterfeit or fraudulently imitated registered trademark or designation, or one belonging to a third party, without his consent;

(d) offer for sale, sell or otherwise market goods or services with a counterfeit or fraudulently imitated registered trademark.

The National Executive Power shall update the amount of the fine annually on the basis of the variation recorded in the index for general level wholesale prices officially published by the National Institute of Statistics and Census."

As accessory measures, Section 34 provides that the aggrieved party, may, regardless of the kind of action elected, apply for:

"*(a)* seizure and sale of the goods and other objects bearing an infringing trademark;

(b) destruction of the infringing trademarks and designations and of all objects bearing the same, unless they cannot be separated therefrom.

Upon request, the court shall order the publication of the judgment at the cost of the offender, where the latter was condemned or defeated in the proceedings."

To this Section 35 adds that, in civil actions instituted to enjoin the use of a trademark or designation, the plaintiff may demand that the defendant post a bond if the latter does not discontinue the questioned use. The court sets the amount of the bond according to the apparent claim of the parties, and may also require that counter-security be given.

If no security is given, the plaintiff may apply for the suspension of the use of the trademark or designation and the attachment of the infringing objects, giving sufficient security if called upon to do so.

By way of precautionary measures, Sections 38 to 41 provide as follows:

"**38.** Every owner of a registered trademark to whose knowledge information is brought of the existence of objects bearing an infringing trademark as provided for in Section 31, may appear before the competent court, requesting

(a) the attachment of the objects;

(b) the drawing up of an inventory and description thereof;

(c) the seizure of one of the infringing objects.

Without prejudice to the power vested in the court to order these measures to be taken *ex officio*, the court may demand adequate security of the petitioner if it considers that the latter lacks the necessary responsibility to be able to respond in the event that the attachment was wrongfully sought.

39. Any person in whose possession infringing goods are found shall produce proof of, and information as to:

(a) the name and address of the person who sold him the goods or procured them for him and the date on which such act occurred, evidenced by the corresponding invoice or bill of sale;

(b) the number of units manufactured or sold and the price thereof, evidenced by the corresponding invoice or bill of sale;

(c) the identity of the persons to whom he sold or delivered the infringing objects.

All of the foregoing shall be entered in the report that shall be drawn up when the measures provided for in Section 38 are carried out.

Refusal to produce the information referred to in this Section, or the absence of documents affording commercial endorsement of the infringing objects, shall give cause for the presumption that the holder is an accomplice in the counterfeiting or fraudulent imitation. The said information may be enlarged upon or completed in the course of the legal proceedings, either on the initiative of the interested party or at the request of the court, which may call upon the interested party to do so within a fixed period.

40. The owner of a registered trademark may make application for the precautionary measures set forth in Section 38 in connection with a similar or unlawfully used trademark, even in situations where no criminal act is involved. Where the corresponding suit is not brought within 15 working days after the attachment or seizure was effected, the attachment or seizure may be cancelled at the request of the owner of the objects attached or seized.

41. The owner of a registered trademark consisting of an advertising phrase may make application for the measure provided for in Section 38 only with respect to the objects that bear the infringing advertising phrase."

As far as unfair competition is concerned, there is no provision for specific action, but, as a precautionary measure, it is possible to invoke the provisions of the Civil and Commercial Process Code of the Nation, Section 232. Under the heading of General Precautionary Measures it is provided that:

"In cases other than those provided for in the foregoing Sections, any person who has substantiated grounds to fear that, during the time prior to the judicial recognition of his rights, he may sustain an imminent or irreparable prejudice, may apply for such emergency measures as may be most apt, under the circumstances, to ensure the provisional accomplishment of the sentence."

(d) With regard to copyright, Sections 71 to 74 of Law No. 11.723 provide as follows:

"**71.** Any person who in any manner or in any form infringes the copyright recognized by this Law shall be liable to the penalty established by Section 172 of the Criminal Code.

72. Without prejudice to the generality of the preceding Section, the following acts shall be considered special cases of infringement, and the following persons shall be subject to the penalty prescribed by the said Section, as well as the sequestration of the illegal editions:

(a) any person who publishes, sells or reproduces through any medium or instrument an unpublished or published work, without the authorization of the author or his successors in title;

(b) any person who falsifies intellectual works by publishing already published works falsely bearing the name of the duly authorized publisher;

(c) any person who publishes, sells or reproduces a work, omitting or changing the name of the author or the title of the work, or fraudulently altering its text;

(d) any person who publishes or reproduces a greater number of copies than those duly authorized.

73. The following shall be punishable with imprisonment of from one month to one year or with a fine of from 100 to 1.000 pesos, to be paid into the encouragement fund *(Fondo de Fomento)* established by this Law:

(a) any person who publicly performs or causes to be performed dramatic or literary works without the authorization of the authors or their successors in title;

(b) any person who publicly performs or causes to be performed musical works without the authorization of the authors or their successors in title.

74. Any person who, by falsely representing himself to be the author, successor in title, or representative of the owner of the rights, causes the suspension of a lawful public performance, shall be punishable with imprisonment of one month to one year, or with a fine of from 100 to 1.000 pesos, to be paid into the encouragement fund established by this Law."

As for precautionary measures, Section 79 provides that:

"Judges may, as a preventive measure and after security has been provided by the interested parties, decree the suspension of a theatrical, cinematographic, philharmonic or analogous performance, the seizure of the denounced works, as well as the seizure of the proceeds already obtained, and any measure which may adequately protect the rights sanctioned by this Law.

"No formality shall be required to prove the rights of the author or his successors in title. In case of dispute, such rights shall be subject to the means of proof established by the laws in force."

All the criminal provisions mentioned are complemented by the application of Title I of the Criminal Code of the Nation.

(e) To all these provisions should be added Articles 6*bis*, 9 and 10*bis* of the Paris Convention (Law No. 17.011), which provide as follows:

"6bis.—(1) The countries of the Union undertake, *ex officio* if their legislation so permits, or at the request of an interested party, to refuse or to cancel the registration, and to prohibit the use, of a trademark which constitutes a reproduction, an imitation, or a translation, liable to create confusion, of a mark considered by the competent authority of the country of registration or use to be well known in that country as being already the mark of a person entitled to the benefits of this Convention and used for identical or similar goods. These provisions shall also apply when the essential part of the mark constitutes a reproduction of any such well-known mark or an imitation liable to create confusion therewith.

(2) A period of at least five years from the date of registration shall be allowed for requesting the cancellation of such a mark. The countries of the Union may provide for a period within which the prohibition of use must be requested.

(3) No time limit shall be fixed for requesting the cancellation or the prohibition of the use of marks registered or used in bad faith.

9.—(1) All goods unlawfully bearing a trademark or trade name shall be seized on importation into those countries of the Union where such mark or trade name is entitled to legal protection.

(2) Seizure shall likewise be effected in the country where the unlawful affixation occurred or in the country into which the goods were imported.

(3) Seizure shall take place at the request of the public prosecutor, or any other competent authority, or any interested party, whether a natural person or a legal entity, in conformity with the domestic legislation of each country.

(4) The authorities shall not be bound to effect seizure of goods in transit.

(5) If the legislation of a country does not permit seizure on importation, seizure shall be replaced by prohibition of importation or by seizure inside the country.

(6) If the legislation of a country permits neither seizure on importation nor prohibition of importation nor seizure inside the country, then, until such time as the legislation is modified accordingly, these measures shall be replaced by the actions and remedies available in such cases to nationals under the law of such countries.

10bis.—(1) The countries of the Union are bound to assure to nationals of such countries effective protection against unfair competition.

(2) Any act of competition contrary to honest practices in industrial or commercial matters constitutes an act of unfair competition.

(3) The following in particular shall be prohibited:

1. all acts of such a nature as to create confusion by any means whatever with the establishment, the goods, or the industrial or commercial activities, of a competitor;
2. false allegations in the course of trade of such a nature as to discredit the establishment, the goods, or the industrial or commercial activities, of a competitor;
3. indications or allegations the use of which in the course of trade is liable to mislead the public as to the nature, the manufacturing process, the characteristics, the suitability for their purpose, or the quantity of the goods."

The above Articles do not, however, grant any measures abroad other than those granted to nationals,[35] any more than the Berne Convention for the Protection of Literary and Artistic Works (Decree-Law No. 17.251/67), the Universal Copyright Convention (Decree-Law No. 12.088/57) or the Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (Decree-Law No. 19963/72), and other treaties do.

V.

The degree of organization of the counterfeiters and the consequences that counterfeiting has for the owner of the affected product, the consumer, the country that falls victim to the counterfeiting and the country of the injured parties are such that the measures existing in our law are only partly acceptable, and do not guarantee in themselves the effective repression of counterfeiting.

In addition, as Walker explains,[36] counterfeiting must be expected to grow and develop for a number of reasons, namely;

(1) because it is an extremely profitable business;

(2) because the erosion of industrial property rights in many parts of the world coupled to trademark licensing restrictions lessens the ability of firms to protect their marks and promotes the phenomenon of counterfeiting;

(3) because the growing protectionist trend in industrialized countries may induce developing countries to condone counterfeiting as a means of earning hard currency.

[35] Argentina has not acceded to the Madrid Agreement for the Repression of False or Deceptive Indications of Source on Goods of 1891, or to the Lisbon Agreement for the Protection of Appelations of Origin and their International Registration of 1954, which contain provisions on counterfeiting.

[36] W.N. Walker, *op. cit.* in note 18 and *loc. cit.*

If this is so, there is no doubt but that our present legislation must be amended so that it may be brought into line with the requirements met by other legislation.

By this we mean tbe following:

First it is necessary to harmonize the various laws governing industrial property from the point of view of criminal provisions and precautionary measures, with the provisions written into the most modern and complete of those laws, namely, Law No. 22.362 on Trademarks and Designations, serving as the basis.

In view of the fact tbat counterfeiting is the work of specialized organizations with abundant financial resources and sophisticated technology at their disposal, the penalties imposed by our laws are not severe enough to dissuade the pirates. It is therefore indispensable to increase tbose penalties, both the fines and tbe imprisonment, and to remove tbe possibility of the offenders remaining free on bail.

In that connection, the model of the U.S. Trademark Counterfeiting Act of 1984 could be taken as a starting point, including the sanction to be imposed on companies, which sbould be extended to all markets covered by the Directorate and the Control Commission.

The precautionary measures written into the Trademark Act should be completed with the possibility of preventive attachment, already authorized by it, being further extended to business papers and general documentation and also to machines, instruments and raw materials or semi-manufactured goods of which use is made for tbe counterfeiting.

A study should be made—if it is found to be appropriate in view of the vast capital available to counterfeiting enterprises—of the possibility of completing the above measures with the inclusion of what in English law has come to be called the "Mareva Order" (from the case of *Mareva Compania Naviera S.A. v. International Bulk Carriers S.A.* (1975) 2 LL. L.R. 509), which Carlisle[37] defines as a judicial order that effectively "freezes" a bank (or other) account for tbe purpose of preventing the defendant from transferring money away from the jurisdiction of the court.

In view of the international character of counterfeiting, work should be done on improving the precautionary measures to be taken in relation to the customs authorities of the country, with a view to making it possible to effect preventive attachment of the merchandise at the customs when there are suspicions of counterfeiting being practiced, followed, if tbe suspicions are borne out, by seizure and destruction of the merchandise to prevent its return to the international circuit.

From this point of view, the American Customs and Procedural Reform and Simplification Act of 1978 and the European Commission's draft Regulation to discourage the dispatch of counterfeit goods provide an interesting guide to be followed in the reform of our legislation.

It also seems to be of fundamental importance to make counterfeiting into an offense comparable to smuggling, in view of the customs and post-customs consequences that such an offense causes.

It seems appropriate to amend the provision on use in such a way that the accused is obliged to discontinue the counterfeiting.

Finally, it would seem appropriate to amend Law No. 22.802 on Fair Trading so that any product manufactured in the country that is intended for export should bear a notice reading *"Industria Argentina"* or *"Fabricación Argentina,"* and that the affixing of the notice is strictly supervised to prevent our country from becoming a center for counterfeiting activities.

Subject to these amendments, and any others that may be suggested—such as making professional groups eligible to bring actions—Argentine legislation would become a forward post in the repression of counterfeiting.

[37] D.T. Carlisle *op. cit.* in note 2 and *loc. cit.*

On the Need for Bilateral and International Cooperation Between Patent Offices*

E. HÄUSSER**

I.

In the years that lie before us, it will be a difficult task to maintain technical rights, that is to say, patents and utility models, in their traditional function as useful instruments in the technical and economic competition, that will assume increasing international significance, but will also become increasingly tough. At the same time, it will be necessary to maintain the other important function of patents, that is to say, their essential contribution to the continuing progress of technology through rapid and reliable communication of the technical information contained in patent documentation. The large patent offices that carry out examination have a great responsibility to bear.

1. Technology has progressed at an ever-increasing rate over recent decades. New technical fields have

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emerged—such as microelectronics or optical fibers—that already exert considerable influence on many areas of conventional technology. This has already resulted in numerous incursions and overlaps between specialized fields of technology and these will become ever more numerous in future. The possibilities opened up by technical developments in fields of promise for the future—examples may be given of energy, communication technology, materials and biotechnology—can hardly be forecast with any reliability. There is no difficulty, on the other hand, in recognizing that foreseeable future technical developments will exert enormous influence on traditional technical fields of knowledge and that these cannot therefore be ignored when surveying future technologies. It is also certain, at the same time, that new technical developments are capable of exerting a positive influence on the future of life on this planet, and indeed must necessarily do so, whether to maintain or recreate an intact environment, to bring diseases ever more under control or to ensure that the dramatically expanding population of the world can be fed. Technical progress in the future—more than ever before—must primarily serve mankind and ensure a life that is worth living.

2. One consequence of the rapid development of technology is the alarming proliferation of technical and scientific publications. It can be taken that in recent years some four million publications with a technical or scientific content have been published each year throughout the world and, in addition, an upward trend is to be observed. More than one million of those publications are produced by the patent offices.

Since its founding in 1877, the German Patent Office has acquired search files of documentation arranged (classified) according to technical fields, that now contain, allowing for multiple filings, more than 24 million patent documents and technical and scientific publications; each year, some 600,000 new publications are added to this collection, including a total so far of 120,000 English language abstracts of Japanese patent documents. In addition to that, we maintain one of the largest specialized technical libraries with holdings of more than 900,000 volumes and a yearly acquisition of over 20,000 volumes, a collection of some 230,000 company periodicals and some 1,500 technical periodicals obtained on regular subscription both from the Federal Republic of Germany and abroad.

However, a particularly significant point would seem to be that the number of documents published by the major patent offices has more than doubled since 1965 and, consequently, within a period of less than 20 years the number of patent documents contained in the search files has also doubled. If this almost exponentially growing quantity of documentation is to be used with any reliability for determining the prior art for the individual invention in a patent application, it is necessary to undertake an increasingly detailed breakdown of the technical fields. This is the only way to obtain individual technical fields in which a manageable number of documents are filed. It is therefore only logical that the total number of main groups and subgroups contained in the International Patent Classification (IPC) has risen from 47,263 in 1968 (IPC[1]) to 58,440 in 1985 (IPC[4]). However, even this detailed classification of technical fields for examination purposes is not sufficient and the examiners at the German Patent Office have therefore developed a further 35,000 subdivisions of the IPC. The search files in the German Patent Office are thus divided up into 100,000 technical specialities and this has therefore been able so far to guarantee comprehensive and reliable state-of-the-art searching.

3. The rapid development of technology in practically all specialized areas, the emergence of completely new technical fields, the increasing interdependence of technical matter and the dramatic growth in the search files places the major examining offices, above all, before a challenge that has to be taken up. Only by taking into comprehensive account the available documents and publications can reliable results be obtained when determining the state of the art as a basis for the assessment of patentability of inventions that are applied for and this is therefore an unavoidable condition for the granting of reliable and legally valid rights.

It has, so far, been possible to overcome the growing difficulties involved in carrying out the tasks of the patent offices, although this has been at the cost of an ever-increasing input. This input involves not only the preparation and maintenance of documentation, the provision of premises for keeping the documentation and the deployment of staff for classification work, but also increasingly affects the work of the examiners. For example, it is no longer an exception in the German Patent Office, when determining the relevant prior art for an application, for it to be necessary to take into account the search files of several examination sections and therefore frequently two or three, or in exceptional cases as many as eight or more, examiners are involved.

It is quite likely that even this prodigality of work will only be able to ensure adequately reliable search results for a limited period of time. According to our estimates, the traditional processing of the search files and the examination activities based on them will be capable for five to 10 years at the most of providing an acceptable basis for the examination of inventions as to their patentability and for the granting of rights with a high probability of legal security. This situation is made even more tenuous by the fact that, in the meantime, new technical results that go to make up the state of the art are increasingly generated in numerous countries of which the documentation could hitherto be ignored by the patent offices with a more or less clear conscience.

Should it no longer be possible, one day, to

determine the state of the art by means of the sources of information available throughout the world, this would also raise the question whether the patent system was satisfying the tasks allotted to it. Patents examined and granted on the basis of incomplete search results would be increasingly lacking in legal security since it would be possible, by interrogating stores of data that had been left out of the count, to obtain information that would oppose the granted patent. In other words, by juggling with data that had not been used in determining the prior art, it would become increasingly possible to find material that would oppose the grant of the patent. As the legal security of granted patents became more and more hazardous, at the same time the confidence of users of the patent system would disappear since, even after thorough examination, granted patents would not always be sufficiently reliable as a basis for long-term technical and economic planning. In addition, the patent offices would no longer be able to fulfill their function as focal points for the communication of available technical knowledge with continuing reliability. Even in the medium term, considerable harm could be done to our economic systems.

The potential danger run by the patent system can only be prevented if the patent offices work closely together in future in the processing of their documentary holdings by means of advanced electronic aids and in the determining of the state of the art. One result of this could be that a part at least of the enormous work load of the patent offices could be reduced by avoiding the duplication of work that is now so frequent.

II.

The first question that arises, however, is how to organize cooperation between the patent offices in the closest and most efficient manner possible. The first aim must be to facilitate examination activities while at the same time maintaining their high quality, to avoid duplication of work in the fields of classification, documentation and examination, to provide an efficient patent information service for the public in our countries and, therefore, also to promote scientific, technical and economic development in our countries. There already exist at present various possibilities which could be very rapidly realized without great outlay.

1. What I am saying is not new, but repeats ideas that have already been expressed on numerous occasions and which I once more set out recently in Geneva within the Permanent Committee on Patent Information (PCPI), where I suggested that our offices should mutually exchange those search results that are already available. We could achieve very rapid results in that field if a genuine interest existed in such cooperation.

The Paris Convention priority deriving from an initial application in the country of origin is almost always claimed for foreign applications. This quotes the time, the country and the file number of the earlier application and therefore means that the necessary bibliographic data for access to the search report already produced at the patent office of the first application are regularly available. Cooperation between offices could therefore take the form of communicating lists in which those bibliographic data (particularly the file number) of the previous application are available. Those lists could be used to check whether state-of-the-art searches have already been carried out for the applications concerned so that any available results could subsequently be communicated. This type of exchange would not only facilitate the work of the offices but at the same time initiate a process of harmonization in respect of search quality. Above all, it could also make a valuable contribution to the transparency of the examination procedure. Obviously, such an exchange of search reports would bring with it a whole series of problems, for instance, that of language and of a rational organization of the process. However, these more formal problems are relatively easy to resolve.

2. The main problem of the patent offices is that they are swamped by the paperwork that has to be processed in order to offer worthwhile documentation; they suffer from the fact that the search files grow each year by some hundreds of thousands of documents. Both the German Patent Office and a number of other major offices have made a start in processing their documentary holdings by means of advanced electronic aids and in using them for carrying out searches. However, it is not only the problems of space and of staffing that make the use of computers absolutely essential. Indeed, it is our experience that to search the traditional matter is frequently insufficient if the state of the art is to be determined reliably and more or less comprehensively in those technical fields that are developing at a very fast rate. Patent data banks will make it possible to carry out searches using the full texts of the documents and also permit searches according to technical concepts in addition to access according to the IPC. By using such search concepts it is possible to identify technical subject matter that is not accessible when using the IPC alone. My idea—that is certainly not feasible in the short term—would be that the offices themselves, either alone or together with other institutions in our countries, establish such patent data banks of the documents they publish themselves and then mutually exchange the data mediums or arrange, in the future, for reciprocal on-line access. This would mean that our offices could do away with the need to reproduce the classified documentation of all those patent offices represented in their search files. This could avoid an enormous amount of duplicated work, particularly in the case of examining offices; the staff thus liberated could be well employed on other urgent tasks.

It will, of course, be of the utmost importance in this respect that the data systems should be compatible with

each other, i.e., that joint standards be developed at an early juncture and also that they be applied in practice. The PCPI Working Groups have already carried out a considerable amount of spadework.

III.

It must be quite clear that the problems that will arise in future in managing the work load of the patent offices cannot be overcome solely by close cooperation between individual patent offices, but that efforts must be made to include as many patent offices as possible within that cooperation. Only in that way will it be possible to take increasing account in the determination of the state of the art of technical information arising in the technically and economically emerging countries and to grant reliably examined patents. The technical possibilities that are already available and, above all, that will foreseeably become available in the future, for obtaining access to technical information argue in favor of setting up an international grid of the documentation boldings managed by the patent offices on the basis of their own publications. I therefore admit quite freely that I have considerable doubts as to cooperation between individual patent offices in the fields of classification and documentation. This will not suffice to ward off the threat to the functioning of tbe patent system in a large number of countries.

To combat that danger, close and confidential cooperation between the largest possible number of patent offices could initially ensure—apart from the elimination of the current duplication of work—that the reliability of searcb results is maintained and even increased within an altogether foreseeable future. It is also to be expected that the determination of the state of the art carried out subsequently in various offices will increasingly lead to equivalent results, meaning that the excbange of searcb reports would certainly be most useful. It may then some day reach the point where such results could be exchanged without further excessive work, thus making it possible again to ease tbe work load on the examiners by eliminating the repetition of work that is still necessary today. Perhaps in future an ideal situation could be achieved in which it would be possible reciprocally to recognize patents based on equivalent searches carried out in accordance with harmonized requirements.

Should it not be possible within the next 10 years to achieve such international cooperation on the widest possible basis, then I am convinced that a serious danger exists of it no longer being possible to accept granted patents as reliable instruments for use in technical and economic competition. It would then become necessary to reflect on other legislative measures that could promote technical progress and economic development.

A heavy responsibility is borne by tbe patent offices, particularly those that carry out examination, in upholding tbe functioning of a tried-and-tested system of technical rights. This responsibility is all the greater by reason of tbe fact that the importance of the patent system has been recognized in the meantime in numerous countries that are determined to find a solution to their economic problems by using the opportunities offered by technical rights. Sucb countries, as for instance China, place their confidence in the positive experience gained by the highly industrialized countries and in cooperation with the patent offices of those countries, that bave operated satisfactorily until now. It is almost impossible to assess the strain tbat would be placed on international tecbnical and economic cooperation if that confidence and the hopes placed in it were to be betrayed. We are therefore obliged from many points of view to commit ourselves to close cooperation. The German Patent Office is prepared to do so unreservedly.

The Influence of the Patent System on the Readiness of Industry to Invest— An Empirical Analysis

K.H. OPPENLÄNDER*

Significance of the Patent System for the Investment Process

Investments are the dynamic element of both enterprises and the national economy: tbey make it possible to translate new knowledge into products and services. The speed with which investments are realized in enterprises exerts a decisive influence on competitiveness. For the national economy, the dynamic effect of investments means that the strength of the economy is maintained and the standard of living of the nation is improved. Investments have a twofold effect on the national economy: they create revenue (value-added effect) and capacity (potential output and infrastructure effect).

The patent system is acknowledged to provide excellent support to this dynamic process. Firstly, the expectation of patent protection promotes research work in enterprises and institutes. Secondly, the monopoly-type situation created by patent protection reduces the risk involved in utilizing the research work. Follow-up investments can then be committed. They enable the invention created in the research phase (invention phase) to be utilized in the innovation and distribution phases (fabrication of the prototype,

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marketing of the product). Thirdly, the obligatory publication of the patent specification gives a new impetus to research. As a result, the flow of information on technological innovations is increased. The first two factors are part of the protective effect of patents and the third factor is part of its information effect. The patent system thus constitutes a motor of economic growth since it repeatedly stimulates inventive activities (incentive effect of patent protection), since it identifies new developments on a global scale (information effect) and since it prepares the way for the utilization of such research work (reduction of the investment risk on account of the protective effect).

The particular significance of the various motives for seeking patent protection emerges from a poll of applicants at the European Patent Office (EPO) that was jointly instituted and carried out in 1985 by the EPO, the Commission of the European Communities (CEC) and the Ifo Institute for Economic Research. Applicants were requested to state which three of the five motives submitted to them were the most important in their opinion. The frequency with which those motives were named gave the order of importance shown in Table 1.[1]

Patent applicants place "securing a technological advance" at the top of the list. This factor is expected to contribute to maintaining and developing competitiveness at the international level. The same also applies to the "long-term securing of important foreign markets" found in second place in the list. Finally, the motive "protection of new investments required in the marketing of inventions," named by almost 45% of applicants, proves that patents are considered an important instrument in obtaining a significant reduction in the investment risk. Purely marketing aspects also play a part. Indeed, more than 34% of applicants named "important instrument for sales and marketing" as a reason for their application and almost 43% the "creation of a basis for licensing."

Focal Points of Influence

It may be assumed that a patent system does not influence the readiness to make investments in the same way across the whole range of industry. The decisions taken on investments are influenced by a multiplicity of factors, of which the patent system is only one, although a significant one, as shown by the example of reduction in risk. On the other hand, by its very structure, the patent system can only exert an influence on certain specific (partial) areas of investment.

An analysis of the limited influence—to be explained by the circumstances—of the patent system on the will to invest may be based on:

- the sophistication of the invention,
- the strategy of the enterprise.

Empirical investigation has shown that the tendency to take out patents depends in each case on the given range of products and the given size of the enterprise. As can be seen from Table 2, in 1980 on average some 45% of innovators filed patent applications for successful innovation projects in the manufacturing industry in the Federal Republic of Germany. Focal points for applications were to be found in the chemical industry, mechanical engineering, electrical engineering and in the precision engineering and optical industries. The range of products in those industries is primarily orientated towards scientific and technical progress and is therefore well suited for patent protection. Other sectors, e.g., those of consumer products, food and drink industries, more frequently based their innovations on development and design activities. In the latter case, it is often assumed that the degree of inventiveness required by the patent system is not achieved. Frequently, therefore, no attempt is made to file an application. The sophistication of the technology flowing from the research and innovation activities therefore plays its part in deciding whether the patent system can influence investment behavior.

A further important factor is the size of the enterprise. The larger the firm, the more applications are filed. The frequency of applications from large-size enterprises—that is to say, a thousand or more employees in this case—lies well above the average for the manufacturing industry: in such enterprises, more than three-fifths of innovators filed applications in respect of innovation projects. In small enterprises, on the other hand, the figure was only one-seventh of innovators. The fact that innovations from small and medium-sized enterprises are less research-based than in the case of large enterprises would seem to be one reason for this variation.

It is probable, however, that the size of an enterprise also influences the different strategy to be pursued in respect of the tendency to file patents.

Sophistication of the Technology as a Factor Influencing the Readiness to Invest

Patent applications constitute early indicators of technical developments since they provide information on the advance of technical, research-based inventions in a given country. It is altogether in the interest of enterprises to secure valuable R & D results, assessed by the degree of inventiveness, by applying for patents. The number of applications in given fields of technology therefore provides an indication both of the intensity and the success of R & D efforts in a national industry and also on trends in the fight to innovate within that industry, particularly in the high technology sector, from an international point of view. To ensure that

[1] All tables and figures appear at the end of this study.

these are in fact "serious" applications that are in effect worked (i.e., excluding blocking patents and reserve patents), only foreign applications should be taken into account since it may be assumed that the high cost of filing and maintaining such patents will only be accepted if backed up by corresponding economic utilization. Technological development can therefore be measured by the worldwide transfer of technology.

Table 3 compares the most important industrialized countries over a period of time. Trends are shown for the period 1976-1981 compared with the period 1972-1975. It is clearly shown that the United States of America's industry occupies the strongest position in the international innovation market, followed by the Federal Republic of Germany. Patent activities in the United States of America and, particularly, in Japan, are above the worldwide average. This may be seen from the increase in foreign applications, amounting to 88% in the case of Japan or to 67.1% in the case of the United States of America. Activities in the EC countries are below average in a worldwide comparison.

Further indications as to the status and strength of innovative activity in high technology are given by key patents. Key patents are those which—in view of their importance—are filed in a large number of countries (filing in 15 countries has been used as the lower limit). In other words, the frequency of applications is taken as a yardstick for the importance of the invention concerned. Table 3, which likewise shows the number of key patents, makes the dominant position of research in the United States of America clear, particularly in terms of growth ("variation" column). These figures also illustrate the fact that technology research in the EC clearly lags behind.

The picture is filled in by breaking down the foreign applications into those belonging to fields of technology that are growing and those belonging to fields that are shrinking, in Table 4. This breakdown can be carried out using the extreme rates of variation of applications in the smallest units of the International Patent Classification (IPC). The Japanese enterprises demonstrate above-average activity in the growth fields, primarily as a result of their wealth of applications in the electronics field. This means that the advance over the already weak EC position in that field has increased yet further.

Two factors therefore emerge from these figures taken from the INPADOC data base in Vienna:

— firstly, it is practically certain that patent applications attract follow-up investments. This correlation had already been pointed out for the high technology area . Patent applications[2] may therefore be used as an early indicator for investments;

— secondly, indications are provided as to the status of international competitiveness. The patent statistics—appropriately exploited—are particularly well suited as a basis for a weak-point analysis, which is of particular interest for those countries, and for their research, competition and economic policy, that are not at the top of the league.

The situation in the high technology field may be further illustrated by the example of information technology.

The development of new products in this field is highly dynamic. It is claimed that the continuous concentration of structures can lead to a reduction in costs for each performance unit of up to 30% a year. That is unique in the history of technology. The rapid improvement in performance of technology generates a rapid succession of new processes and products.

The high sensitivity of the information technology area in respect of product innovations means that competition in research and quality receives a great impetus. Polls carried out by the Ifo Institute have shown that process innovations leading to rationalization primarily stimulate price competition, whereas product innovations in the information technology area initially concern technology. For example, product innovations carried out in 1982 in the field of communications technology as a rule demanded new research activities, whereas product innovations in other technological fields were based on the technical development of the results of research already available. The facilities that have to be provided for the production of these products represent another effect of product innovation. Particularly in the case of communications technology, product innovations are frequently possible only if the production technology is changed at the same time (see Figure 1).

Information technology is at the convergence of a number of disciplines. Physics, mathematics, computer science, optics and engineering sciences are all involved. Newly coined words such as optoelectronics or mechatronics make this clear. This technology makes great demands on science. The research and development activities are given a new impetus and new dimensions and this also therefore affects patent activities.

Information technology is a rapidly growing field that extends to many fields of application in which it acts not as a substitute but as a supplement. The information technology industry (generation, storage, processing and transfer of information) is therefore carried over into both production and service industries. The new technologies in the information technology field demand considerable investments in plant and infrastructure. An increase in investments is therefore to be expected in the private, public and semi-public sectors.

A medium-term Ifo forecast of investment developments in the Federal Republic of Germany up to the end of this decade shows that the dissemination on the new production and office technologies has in fact only just

[2] Applications are preferred to granted patents since they possess a time lead. It cannot be excluded, of course, that some applications may not lead to a grant of a patent. This method is nevertheless adopted here since the important factor is the early indicator property of applications.

begun. Additional investment impetus will be provided by the end of this decade as a result of conversion to digital communication tecbniques, the establisbment of a broad-band communication network based on optical fibers, from the opening up of the radio and television media to private operators (and indeed many other factors). Estimated figures are given for the development of investments, broken down by brancb (cf. Figure 2). Accordingly, the rate of investments in the Federal Republic of Germany will climb again, following a continual drop during the 1970s and tbe first part of the 1980s, and will exert a positive influence on economic growth as a result of the revenue and capacity effects of the investments. Employment effects will also be produced since both increased investments in rationalization (leading to loss of jobs), and also increased modernization and expansion investments (leading to new employment) are to be expected.

Looking at the high technology fields, it may be seen that the influence of the patent system has increased in economic significance. Indeed, international competition takes place in tbe bigh technology sector which is characterized by the high proportion of patent applications and grants and tbe considerable dynamic effect of sucb applications and grants, wbich again strongly influences investment activity in the areas of plant and infrastructure.

Patentability, Patenting Tendency and Enterprise Strategy

Patentability, patenting tendency and enterprise strategy are of course all connected and they have influenced each other for a number of years. The relationship will be examined in more detail, using the example of the differing bebavior of enterprises of differing sizes. This could also shed some light on wby small and medium-sized enterprises do not receive the same investment incentive from the patent system as do large-sized and multinational enterprises.

The innovative force of small and medium-sized enterprises bas been studied and recorded extensively, both tbeoretically and empirically; simple reference is made to tbat fact. Is sucb innovative activity reflected in a corresponding frequency of patent applications? One must ask whether the patent system, as set up by the law and its interpretation, is not primarily designed for large-sized companies.

Firstly, wbole areas of scientific and technical progress are excluded from patentability. Patents are granted for technical inventions. Protection is not available for the scientific knowledge obtained from basic researcb or for new methods of organization, marketing and management. Take, for example, computer programs and the results of genetic engineering research. A complication arises from tbe fact that there are divergencies between tbe continental European and Anglo-American legal concepts. The former refuse patentability for products in those fields (computer programs, genetic engineering) for the reason that tbey constitute instructions given to the human mind. Interpretation of tbe statutes and case law in the United States of America, on the other hand, is flexible. Computer programs are protected by means of copyright. The Semiconductor Chip Protection Act[3] affords a 10-year term of protection to the design of silicon chips on wbicb computer programs are etched. In the field of genetic engineering, the tendency, based on court decisions, is to accept living microorganisms created by man as being patentable. The field of computer programs very often concerns small and medium-sized enterprises. Market opportunities bave occurred in particular in the software and programming field and have been occupied (or could be occupied) by sucb companies. It is possible that the difference in legal concepts also constitutes an obstacle to the competitiveness of European companies.

Likewise, problems arise from tbe examination of novelty and of inventive step (degree of inventiveness). It emerges from a dispute concerning the analysis of the decision statistics of the German Federal Patent Court that the practice of the Senates may be interpreted as being "variable." The degree of complexity of the invention and the technical field are named as criteria. Inventions in mecbanical engineering are less likely to obtain a patent than chemical inventions, for instance. That particularly affects small and medium-sized enterprises in particular, since mechanical engineering in the Federal Republic of Germany basically takes place in sucb companies.

Additional difficulties arise out of the particular procedure for obtaining a patent. Before a patent application may be filed, it is necessary to carry out thorough and therefore expensive searching which can best be done in a patent department. However, small and medium-sized enterprises do not usually have such departments. They are therefore obliged to make use of outside help. The time and money required for the application procedure are likely to dissuade quite a few enterprises from going to tbe patent office. The difficulties involved in monitoring patent protection are a further factor. Continuing and, in view of scientific and technical progress, increasing management of the patent portfolio is required. These factors are often the reasons why small and medium-sized enterprises do not file applications for their inventions. According to Table 5, the reasons quoted are in particular "application procedure too complex and/or too lengthy," "excessive attorneys' fees," "excessive patent fees" and also "infringements hard to determine/legal action too expensive." The range of these institutional reasons is therefore sufficient to explain wby as a general rule small and medium-sized companies do not appear more often as patent applicants.

[3] See *Industrial Property Laws and Treaties*, UNITED STATES OF AMERICA – Text 1-001.

There may, however, also be reasons for not acting that arise from the innovative behavior of small and medium-sized companies. As has already been pointed out, such companies pursue innovations that are hased less on research than on development and design and they are therefore correspondingly less able to contrihute to "high-prestige" technical progress with its attendant requirement of inventive step. That forms part of their entrepreneurial philosophy. As a result of their close proximity to the market and of intensive customer service, which contribute to the rapid implementation of innovations in the manufacturing sector, the individual product enjoys a relatively brief life span and the product cycle is therefore a short one. It emerges from the Ifo innovation test of 1980 that, in respect of product innovations, the share of new developments in the category of the smallest enterprises, that is to say, enterprises with between 20 and 49 employees, is above that of the average developments in the manufacturing industry, whereas in the case of large-sized enterprises (in this case, those having 1,000 or more employees), it is the simple product variations that dominate over new developments. The study draws the conclusion that those innovation activities

> "are typical for small and medium-sized companies in which it is not large-scale expenditure for innovation and systematic R & D efforts that are decisive, but specialized market knowledge and know-how that are required. In that way, small and medium-sized enterprises create market sectors which the innovative capacities of the large companies do not wish or are unable to occupy."

The resultant short product cycle can lead to a lack of interest in patents. A short life cycle for a product does not justify extended patent protection from an economic point of view. The official statistics of patents of the Federal Repuhlic of Germany show that the duration of granted patents has gone down over the last three decades. The average lifetime of a patent is currently some nine years. Secrecy considerations (preventing the filing of an application) therefore play a relatively minor role in the case of small and medium-sized enterprises (cf. Table 5).

Thus, the patent system can contribute relatively little, from the point of view of the national economy, to the readiness to invest in this category of enterprise. Innovation and investment activities are conducted quite frequently without patent protection. It would seem that a close relationship can be observed between research-hased innovation and patent applications. Such innovations are, however, primarily characteristic of large-scale enterprises.

Patents as a Trigger to Marketing Investments

As competition becomes more intense as a result of the internationalization of markets and the challenge created by the new technologies, the marketing sector of an enterprise must be increasingly stimulated, as a survival strategy, and incorporated in the strategic planning of the undertaking. To what extent does the patent system influence the marketing sector and the investments made in that area?

Marketing as a principle of entrepreneurial skill has its hasis in an intensive observation and analysis of the selling and buying markets relevant to the undertaking at home and ahroad and of all other factors in the firm's environment, including legislative and political developments. Marketing assumes ever-increasing significance as a tool in the systematic shaping and promotion of selling markets, since the practical commercialization of new technologies in the shape of new products introduced to the market is becoming ever more important. The less a firm knows about future sales' potential and practical applications of new products, the greater the risk of a flop. For that reason, marketing research should deal increasingly with the technical problems of the practical application of inventions.

The smaller-sized enterprises lag behind the large-scale enterprises in their systematic utilization of marketing tools due to the fact that their personnel resources are frequently less adequate. The large-scale enterprises have made intensive use of the current law of supply contracts with the aim of securing their own market position, for example, by introducing selective distrihution systems and by concluding licensing contracts, particularly with foreign companies. The aim of the companies in introducing such contractual systems is to improve their control over the sales of their sophisticated products, for example, through domestic or foreign trading companies, in dynamic market operations.

As a tool of company policy, patents offer the possihility of "excluding" competitors from being distributors of the protected product, i.e., patents in fact have what is known as a market exclusion effect. A patent gives the enterprise the possibility of extending considerably its freedom to act in a competitive situation. However, this demands that the undertaking should act positively, and marketing offers a diverse, but also in some cases demanding, range of tools. This exclusive right to the commercial exploitation of a patented product can lead to considerable impairment of competition, and so should only be afforded by the State, in view of considerations of technology policy, where certain criteria are satisfied by the invention, particularly as regards the (absolute) novelty of the invention, since the restriction on competition that can arise from patents may only be accepted from an economic and policy point of view if the new invention genuinely promotes technical progress.

The fact that patents have as yet been rather inadequately utilized in marketing by enterprises derives also from the fact that formal legal "patent" thinking is not always in line with market thinking; the securing of a market by legal means, as permitted by the patent system, is far removed from entrepreneurial marketing.

The primary aim of product policy as part of a long-term marketing strategy is to use new or considerahly

improved products to give the enterprise a strong competitive edge over its competitors. For an enterprise to survive, it is necessary for it to change its models and ranges and to present attractive and technologically outstanding improvements in order continually to obtain a lead over its competitors. If products are maintained for too long a period there is frequently a falling-off in the enterprises's market position.

Competitors usually attempt to make good any lead that has been obtained through new products as quickly as possible, since any lost market territory can only be recouped with considerable marketing outlay. As technical progress gathers speed, any lead obtained by new products can only be held and economically exploited by an enterprise if it succeeds in obtaining industrial property rights as soon as possible. This serves as an additional security for a "good" market position that has often been won at great cost. Marketing and the patent law system are thus complementary in that one attempts to extend the trading possibilities of the firm by means of new products and the other makes it possible for enterprises to exclude competitors from the market.

It should be noted here, however, that in reality a patent alone cannot give a new product success on the market. Every outstanding technical product comes up against increased R & D activity on the part of domestic and foreign competitors since it constitutes a technical challenge to those competitors. To avoid being "technically overtaken" by the competitors, at least for a short time, it is absolutely essential that a patented product be further improved by continuing R & D activities. This ensures that the technological lead over competitors can be maintained for a longer period, and also that sales of the patented product are "supported" by an appropriate marketing mix.

Empirically, what is therefore the conclusion? A poll carried out by the Ifo Institute in the electrical engineering and mechanical engineering industries shows that, in addition to providing protection against imitations and the resultant protection of a sales market, marketing arguments are held to constitute a significant reason for filing patent applications in respect of inventions. Forty percent of mechanical engineering companies were of the opinion that patents constituted an important selling point for their products, and in the electrical engineering industry, the same view was held by almost one firm in four. This suggests that enterprises can better encourage their customers to buy their product by referring to a patent than if they simply describe its technological qualities or superiority. However, the increase in turnover thus obtained also means that further investments must be committed.

Variations in behavior can further be seen to depend on the size of the enterprise. The questions asked in Table 1 are asked again in Table 6 in respect of applications before the EPO, broken down by category. A strikingly high place has been given by the small and large-sized enterprises to "creation of a basis for licensing," whereas medium-sized enterprises apparently attach less significance to this factor. Further polls carried out more recently by the Ifo Institute demonstrate clearly that particularly those companies that are heavily committed to foreign trade increasingly tend to secure specific foreign markets through a long-term licensing strategy. This form of market acquisition through the increased granting of licenses has in recent years become an absolute necessity for many German enterprises (primarily, of course, large-sized enterprises) in those countries that attempt to protect themselves against foreign competition by means of obstacles to importation and restrictions on direct foreign investments. By granting licenses, the manufacturers of capital goods in many cases obtain the possibility of supplying the licensee enterprises with the material necessary to commence and maintain production at the licensee's plant.

Licensing in order to penetrate a foreign market likewise appears advantageous in those countries in which direct investments entail a comparatively high risk. Further, reasons of cost often have an influence on whether a license should be granted since almost all license agreements contain clauses on the sale of the licensed products. In such cases, the enterprises involved are usually small ones.

The majority of licensing agreements cover knowledge that is protected by patents. It has to be emphasized, however, that licensing strategies are only attractive if the country of sale possesses an efficient legal system for industrial property rights to ensure, for example, that infringement of a valid patent can be stopped in the shortest possible time. The legal security that is often lacking in respect of patent infringement or contractual licenses in certain non-European countries frequently discourages the use of licenses and patents in export marketing. In those countries in which patents enjoy high technical and social esteem (e.g., Japan or the United States of America), industrial property rights are used with success as marketing tools. If the use of patents is to become an accepted part of companies' export marketing, then it is absolutely essential that the legal position of granted patents should be improved.

Since little is known of the contents of license agreements, questions on this subject were put to applicants at the EPO. The various types of contents provided the figures shown in Table 7. According to the figures, a majority of applicants name both patent-based knowledge and industrial know-how as the content. As the size of the undertaking grows, the proportion of applicants having this type of "mixed" license agreement also grows. The small and medium-sized enterprises give a figure in the range from 60 to 65%, the larger and largest companies from 70 to 80%. License agreements containing exclusively patent-based knowledge are usually concluded by applicants belonging to the "less than 50 employees" category. This, of course, also includes independent inventors. Very few applicants rely solely on license agreements

that essentially or exclusively contain industrial know-how. In this case, it is medium-sized enterprises (from 200 to less than 1,000 employees) that are slightly above the average.

Importance for the National Economy of Technology Transfer by Means of Patents and Licenses

The remarks concerning a patent application as the basis for licensing lead to fundamental considerations of the consequences of the growing internationalization of the economies of highly developed countries. Trends are visible that suggest that export trade in goods is becoming increasingly supplemented by direct investments abroad and by the conclusion of forms of cooperation without capital participation, in which licensing and patent assignment contracts play a special role.[4] Since the enterprises in the industrialized countries wish to participate as rapidly as possible in international technical progress—this can preferably take place prior to trading in goods or direct investment, for example, in the field of research and development—such contracts are of particular and increasing significance.

This is confirmed by Figure 3. According to its data, one-half of enterprises in the industrialized countries were active in the last five years exclusively through direct investments, just under one-quarter made use exclusively of cooperation transfer (without capital participation) and somewhat more than one-quarter of the enterprises utilized both forms of transfer. It is expected that the replies from the enterprises will in future show the increasing importance of cooperation transfer. Practically 40% of companies wished to make use of that type of transfer, that is to say, practically as many as were engaged in direct investments.

The future activities of German industrial enterprises in the developing countries will increasingly move towards forms of cooperation without capital participation: 53% of enterprises expect this to happen, compared with 37% of enterprises that have used this form of transfer in the past. Commitments to direct investments and joint ventures are likely to fall off accordingly. There is an obvious connection with the pressure exerted by the developing countries in their restrictive investment policy in respect of foreigners. It is, however, also probable that this change in the type of cooperation corresponds to the policy of the enterprises since it is a fact that direct investments cannot always be realized, either for personal or for financial reasons.

A study carried out by the Ifo Institute (Pollak 1982) illustrates the direction taken by both active and passive licensing policy of German enterprises:

> "Active licensing policy is mostly adopted for considerations of sales. Either the markets are closed to trade in goods or direct investments or they cannot be exploited due to internal bottlenecks (such as lack of staff or finance). This latter factor may apply in particular to small and medium-sized enterprises. A second reason is given: it is claimed that United States enterprises market their R & D results by means of licensing and consultancy contracts. The approach adopted by the German enterprises is rather to exploit R & D within the firm, thus direct investments are preferred. A passive licensing policy saves expenditure on research and development within the enterprise itself. At the same time, there is participation in the (perhaps only presumed) technical lead possessed by the licensor since such contracts mostly include participation in technological improvements. Likewise, the application risk is limited since the licensor has demonstrated the applicability. Disadvantages can derive from the fact that such a company becomes too dependent and its own R & D activities are likely to wither away with a resultant loss of experience in dealing with application problems."

What is the extent of such "technology transfer under agreements"? Relevant statistics are thin on the ground. Nevertheless, revenue from patents and licenses can be calculated. These would appear to be the main transfers in this field. Table 8 first shows the outstanding influence of the industrialized countries in this sector: 86% of all revenue in 1983 flowed towards industrialized countries. This trend is in fact increasing: in the 1960s and 1970s, the share was between 70 and 75%.

The breakdown of the overall figures by sector (Table 9 contains the figures for 1983) confirms the great importance of the industrialized countries. In the breakdown (according to different industries of the economy), the outstanding position of three industries becomes clear. The chemical and oil-processing industries account for between one-third and two-fifths of all revenue, the metallurgical and engineering industries and the electrical engineering industry in each case account for one-quarter of the revenue. Here again, the importance for technology transfer of those industries based particularly on scientific and technical progress becomes clear.

Conclusion

With the aid of an empirical analysis we have been able to demonstrate the influence of the patent system on the readiness of industry to make investments. The data were taken from statistics of the Federal Republic of Germany, from international statistics and also from

[4] Licensing and patent assignment contracts are understood to comprise the assignment of rights in industrial property and rights in non-patentable know-how. Reference should be made to a particular form of licensing: franchising, mostly consisting of the licensing of a technology/marketing package. Other forms of cooperation between enterprises without capital participation are:

— Combined transactions: deliveries and counterpart deliveries that are covered by contract, e.g., deliveries of plant in exchange for long-term deliveries of raw materials.

— Contractor and service contracts: e.g., for the exploitation of raw material deposits. The partner from the industrialized country provides services for prospecting, opening up and working, without owning property rights. The consideration consists of procurement rights at special conditions.

— Management and technical consultancy contracts: provision of qualified personnel.

— Turnkey construction of plant ready for production. A guarantee of certain production objectives is frequently included.

— Coproduction: parts of the production process are transferred abroad where costs are lower (contract processing and specialization contracts).

the results of polls carried out by the Ifo Institute for Economic Research. The most recent data are taken from a poll organized jointly with the EPO. Influence is exerted in many ways. It is of significance at the entrepreneurial level. Additionally, it is of importance for economic growth. Focal points of influence may be identified since the patent system does not constitute the "sole reason" for investment projects and, as a result of its configuration (applicable only to "high-grade" technologies), only concerns very specific areas of investment operations. The range of products and the size of enterprises are the criteria for these focal points: industries which are particularly oriented towards scientific and technical progress are (naturally) particularly subject to such influence. On the other hand, the commercial strategy of small, medium-sized and large enterprises of course differs and this results in differing "exploitation" of patents (patenting tendency).

As trade becomes increasingly international, the sophistication of technology increases in importance as does therefore also the patent system, since a lowering of the risk involved in investment leading to discoveries and inventions is promoted by the protective effect of patents. This point can be seen by taking the example of an international comparison between the main competing regions (United States of America, Japan, Western Europe) and the example of a current high-technology area of growth (information technology).

There is a correlation between the tendency to use patents and the size of the enterprise. The bigger the enterprise, the greater the tendency to use patents. Is that a fundamental principle inherent in the system? An attempt is made to study this question. Inadequacies in the patent law and in patent practice (in the Federal Republic of Germany in this case) are identified since there is a suspicion that both factors generally favor large-sized enterprises.

With the increasing pressure of competition, marketing efforts gain in importance. How do patents affect the readiness to invest in this area? Patents constitute an important selling point. The creation of a basis for licensing is mentioned in particular. Pride of place is taken by "mixed" licensing agreements covering both patent-based knowledge and industrial know-how. With increasing size of the enterprise, the proportion of applicants having such agreements also increases, as was shown by a joint poll carried out by the Ifo Institute and the EPO.

Finally, the economic significance of technology transfer by means of patents and licenses is not to be underestimated. The conclusion of forms of cooperation without capital participation has gained a share of international trade that can no longer be ignored, whereby licensing and patent assignment contracts play a particular part. Again, this particularly concerns the industrialized countries, and again primarily those industries that generate scientific and technical progress: chemical, electrical engineering and the metallurgical and engineering industries.

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TABLE I

Important Reasons for Filing an Application with the EPO
(in order of frequency)

Reasons	*Named by applicants in %*
Securing of a technological advance	63.7
Long-term securing of important foreign markets	53.9
Protection of new investments necessary for the marketing of inventions	44.7
Creation of a basis for licensing	42.6
Important instrument for sales and marketing	34.3

TABLE 2

Tendency of Innovators to Apply for Patents
(more than one answer may be given)

Major groups—size of enterprises	*Patent applications filed for innovation projects by % of innovators*
Raw materials and producer goods industry	53.7
including:	
Chemical industry (specialities only)	70.9
Capital goods industry	58.4
including:	
Mechanical engineering	68.1
Vehicles	66.5
Electrical engineering	57.3
Precision engineering, optics, watch-making	60.6
Iron, sheet and metal goods	33.3
Consumer goods industry	13.7
including:	
Woodworking	9.5
Plastics	31.3
Food and drink industry	7.5
Processing industry (areas covered)	45.1
20- 40 employees	15.2
50-199 employees	13.2
200-999 employees	35.6
1,000 and more employees	61.8

(Source: Special question in the Ifo economic test, November 1980, Ifo innovation test 1980.)

TABLE 3

International Comparison of Patent Activities
Period: 1976-1981, share in %

Country of origin	*Total foreign applications*[1]	*Key patents*[2]	*Comparative variations over the period 1972-75 in %*	
			Total foreign applications[1]	*Key patents*[2]
United States of America	30.8	36.5	67.1	102.8
Japan	10.0	3.1	88.0	73.4
EC	45.3	42.5	57.6	46.8
including:				
Germany, Federal Republic of	21.3	16.0	60.3	32.8
France	8.0	7.5	61.8	52.6
United Kingdom	9.3	10.9	47.2	72.8
Other countries	13.9	17.9	55.7	74.8
World Total:	100.0	100.0	62.8	69.6
For information:				
Quantity	1,530,213	33,595		

[1] The assessment concerns approximately 70% of patents throughout the world since the technical areas are limited.
[2] The invention was filed for a patent at least 15 times throughout the world.
(Source: INPADOC; Ifo calculations.)

TABLE 4

Comparison of Patent Activity in Technological Fields with Rates of Variation of Applications Abroad, 1976-1981

Countries and groups of countries	*Share in %*					*Variation rate 1976-1981/1972-1985 in %*				
	Total	*Sections*[1]				*Total*	*Sections*[1]			
		C	*F*	*G*	*H*		*C*	*F*	*G*	*H*
	Growth fields of technology									
United States of America	31.8	35.5	26.3	31.3	38.7	331.9	518.1	362.9	240.8	317.4
Japan	11.4	11.1	6.2	24.1	13.9	560.8	650.0	697.4	512.3	488.6
EC	44.1	40.7	49.1	37.2	43.5	526.2	570.8	596.5	383.2	548.1
including:										
Germany, Fed. Rep. of	19.8	19.4	22.6	18.5	17.9	623.9	731.8	629.0	583.0	485.1
France	8.1	4.7	10.7	6.2	8.7	545.9	482.6	659.8	330.0	497.4
United Kingdom	8.9	9.1	6.8	5.9	7.2	481.2	511.4	413.2	578.8	575.9
World total:	100.0	100.0	100.0	100.0	100.0	430.9	536.3	489.0	338.4	402.2
	Shrinking fields of technology									
United States of America	35.0	30.4	30.7	45.8	39.9	−74.9	−86.3	−68.0	−63.3	−72.1
Japan	10.1	5.6	30.3	14.8	19.0	−74.2	−88.5	−70.7	−37.8	−57.6
EC	44.2	51.8	31.9	31.7	34.6	−78.1	−82.4	−70.7	−58.1	−68.8
including:										
Germany, Fed. Rep. of	18.4	15.3	15.6	12.8	12.3	−78.8	−85.6	−73.3	−60.7	−72.6
France	6.7	12.5	6.2	5.5	6.0	−80.8	−78.1	−72.4	−27.9	−70.0
United Kingdom	13.1	17.1	6.5	6.2	10.0	−76.0	−81.4	−66.9	−48.4	−52.6
World total:	100.0	100.0	100.0	100.0	100.0	−77.4	−84.9	−69.6	−60.8	−68.6

[1] IPC sections: C = Chemistry and metallurgy, F = Mechanical engineering, G = Physics, H = Electrical engineering.
(Source: INPADOC; Ifo calculations.)

TABLE 5

Reasons for Not Filing Patent Applications for Technical Inventions
(broken down by size of enterprise, electrical engineering industry and mechanical engineering)

Size of enterprise (turnover in million DM)	*Over the last five years, ... % of enterprises[1] gave the following reasons for not filing applications for "patentable" inventions*					
	Patent infringements hard to determine/legal action too expensive	*Application procedure too complicated and/or too lengthy*	*Excessive patent fees*	*Excessive attorneys' fees*	*Relatively short lifespan of the product/process*	*Secrecy possible*
Less than 5	71	50	34	32	23	14
5 to less than 10	81	48	39	23	23	11
10 to less than 25	67	34	27	22	26	13
25 to less than 50	73	31	26	16	16	22
50 to less than 100	66	24	26	21	29	30
100 to less than 250	57	24	28	9	20	39
250 and over	57	15	31	8	8	58
Total	71	43	33	26	23	15

[1] More than one answer was possible.
(Source: Statistics of the Ifo Institute for 1980-1981.)

TABLE 6

Essential Reasons for Filing Applications for Patents with the EPO—According to Applicants in 1983
(broken down by number of employees of applicant companies)

Size of enterprise (from ... to less than ... employees)	*For ... % of enterprises of a given size the following essential reasons[1] were significant for filing applications for patents with the European Patent Office:*						
	Long-term securing of important foreign markets	*Creation of a basis for licensing*	*Important sales and marketing tool*	*Securing of a technological lead*	*Protection for new investments*	*Applicants*	
						absolute	*%*
Less than 50	52.3	53.9	28.2	46.7	38.4	1,037	31.8
50- 200	52.1	30.7	35.1	68.2	43.0	553	16.9
200- 500	55.5	28.2	37.2	75.8	46.4	422	12.9
500-1,000	53.9	31.3	41.9	71.6	47.4	310	9.5
1,000-2,000	52.4	40.1	40.8	71.9	46.8	267	8.2
2,000-5,000	57.5	44.8	37.2	69.7	51.0	261	8.0
Over 5,000	57.7	53.4	34.3	73.2	53.4	414	12.7
Total:	53.9	42.6	34.3	63.7	44.7	3,264	100.0

[1] More than one answer was possible, but the maximum was three.
(Source: Statistics of the Ifo Institute and of the EPO 1985-1986.)

TABLE 7

Importance of Various Contents of License Agreements of Applicants at the EPO

Contents	*Cited frequency in %*
— *Exclusively* patent-based knowledge	8.6
— *Predominantly* patent-based technical knowledge	17.3
— *Predominantly* industrial know-how (i.e., technical knowledge not based on a patent)	7.2
— *Both* patent-based knowledge *and* industrial know-how	64.3
— *Exclusively* industrial know-how	2.6

(Source: Statistics of the Ifo Institute and of the EPO 1985-1986.)

TABLE 8

Revenue from Patents, Inventions and Processes by Groops of Countries (1965-1983, in Million DM and Percent)[1]

	1965	*1970*	*1973*	*1976*	*1977*	*1978*	*1979*	*1983*
All countries	301 (100)	434 (100)	576 (100)	728 (100)	778 (100)	864 (100)	901 (100)	1,313 (100)
Industrialized countries	212 (70.4)	307 (70.7)	413 (71.7)	543 (74.6)	565 (72.6)	652 (75.5)	666 (73.9)	1,128 (85.9)
Developing countries	83 (27.6)	119 (27.4)	146 (25.3)	139 (19.1)	142 (18.3)	165 (19.1)	194 (21.5)	128 (9.8)
State trading companies	6 (2.0)	8 (1.8)	19 (3.3)	45 (6.2)	71 (9.1)	46 (5.3)	41 (4.6)	57 (4.3)

[1] Structure according to groups of countries.

(Source: Annex to the statistical supplements to the monthly reports of the German Federal Bank, series 3, No. 7: Balance of payments for the Federal Republic of Germany by region, various years.)

TABLE 9

Revenue from Patents, Inventions and Processes by Industries and by Groups of Countries, 1983, in Million DM and Percent[1]

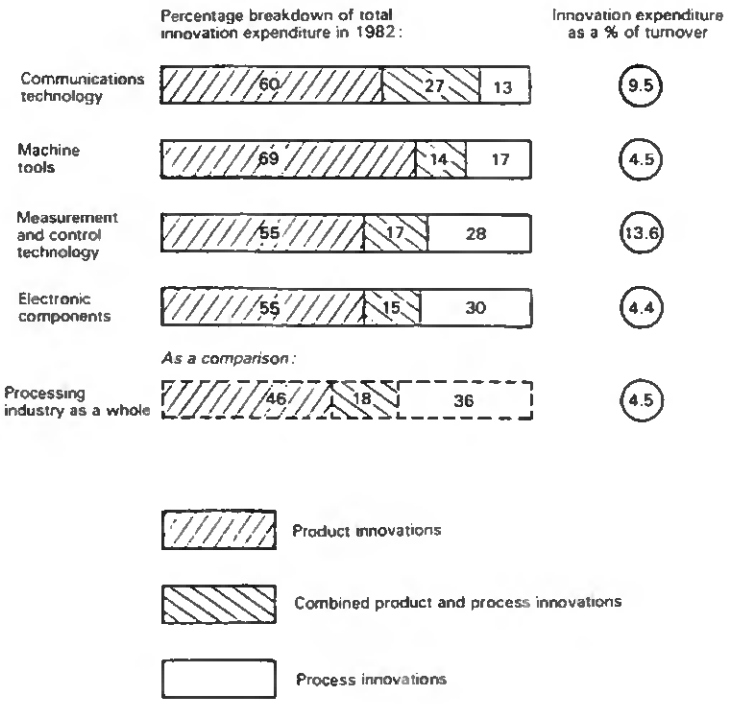
	Industrialized countries		*Developing countries*		*Planned-economy*		*All countries*	
Chemical and oil-processing industries	413.3 (38.2)	(84.6)	72.3 (56.6)	(14.2)	5.9 (10.4)	(1.2)	509.5 (38.8)	(100)
Metallurgical and engineering industries	331.7 (29.4)	(86.3)	18.4 (14.4)	(4.8)	34.3 (60.2)	(8.9)	384.4 (29.3)	(100)
Electrical engineering industry	235.5 (20.9)	(88.1)	21.6 (16.9)	(8.1)	10.1 (17.7)	(3.8)	267.2 (20.3)	(100)
Precision engineering and optical industry, fabrication of iron, sheet metal and metal goods industry	5.1 (0.4)	(68.9)	0.1 (0.1)	(1.4)	2.2 (3.8)	(29.7)	7.4 (0.6)	(100)
Food and drinks industry	22.6 (2.0)	(96.2)	0.8 (0.6)	(3.4)	0.1 (0.2)	(0.4)	23.5 (1.8)	(100)
Other processing industries	32.6 (2.9)	(84.2)	5.3 (4.1)	(13.7)	0.8 (1.4)	(2.1)	38.7 (2.9)	(100)
Other industries	69.6 (6.2)	(84.4)	9.3 (7.3)	(11.3)	3.6 (6.3)	(4.3)	82.5 (6.3)	(100)
All industries	1,128.4 (100)	(85.9)	127.8 (100)	(9.7)	57.0 (100	(4.4)	1,313.2 (100)	(100)

[1] Horizontal: by groups of countries; vertical: by industries.

(Source: German Federal Bank, monthly report of the German Federal Bank, 36th year, No. 7, July 1984.)

FIGURE 1

The Proportion of Total Expenditure on Innovation in Various Areas of the Processing Industry in the Federal Republic of Germany

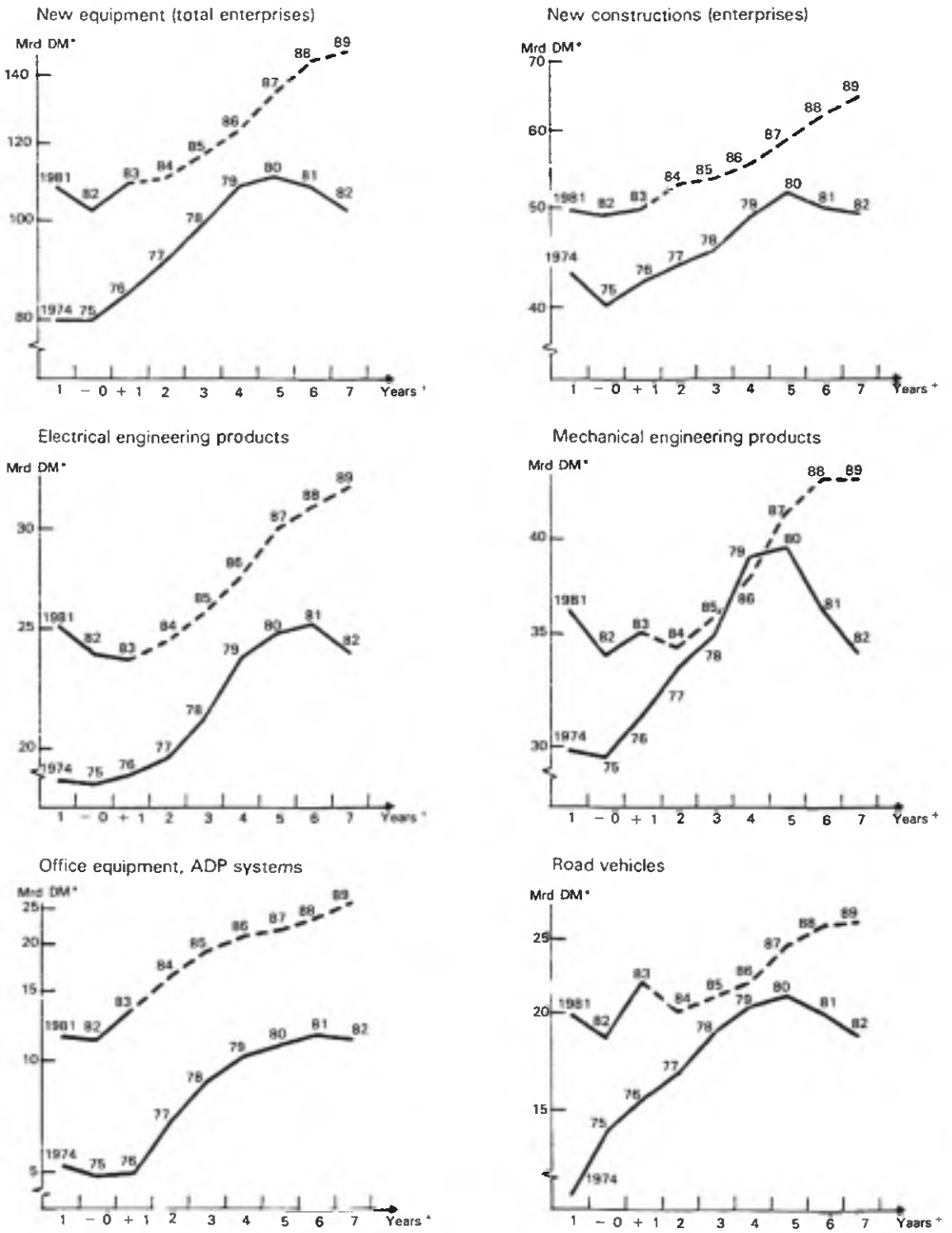


Note: Less large-size enterprises in the component industry.
(Source: Ifo innovation test 1982.)

FIGURE 2

Investments Committed and Forecast in Various Industries in the Federal Republic of Germany

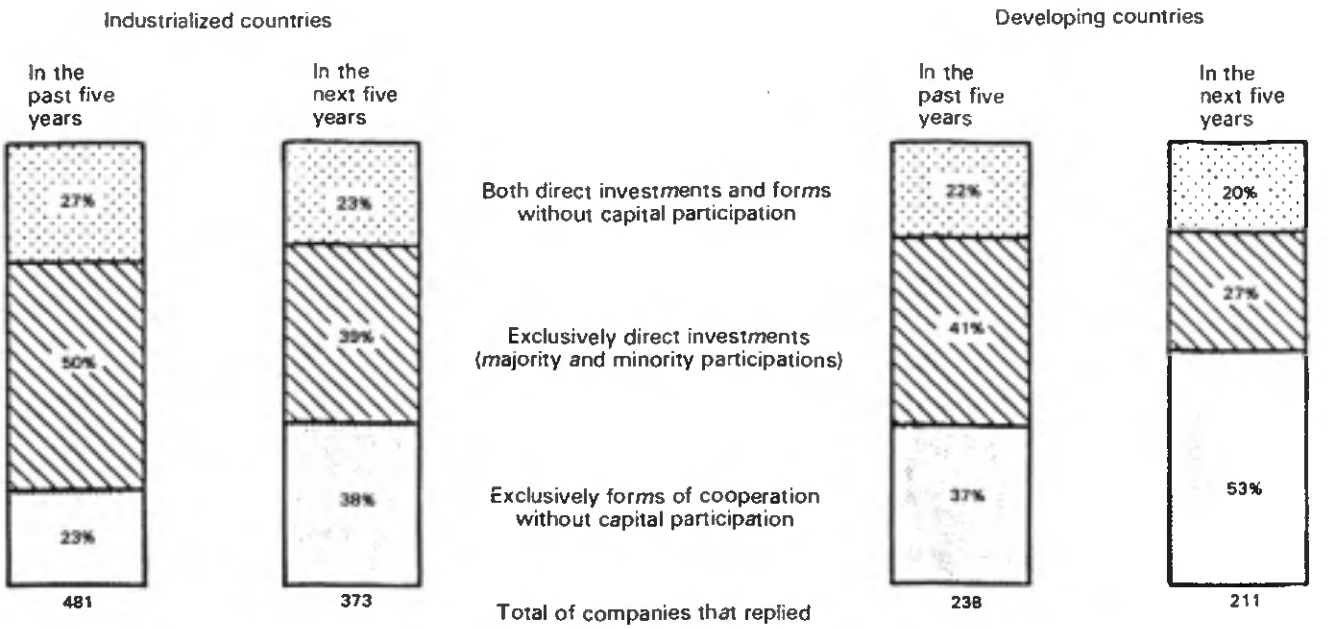
Acquisition [1] of capital goods in the 1970s and 1980s



* Logarithmic scale.
\+ Following the economic depression.
[1] At 1976 prices.
(Source: Federal Office of Statistics; Ifo forecasts.)

FIGURE 3

Current Status and Future Developments of Commitments of German Enterprises Abroad by Means of Direct Investments and Forms of Cooperation Without Capital Participation



(Source: Ifo investment test 1982-83, Ifo Institute for Economic Research, Munich.)

Book Reviews

Europäisches Patentübereinkommen; Münchner Gemeinschaftskommentar, by F.-K. Beier, K. Haertel and G. Schricker. Carl Heymanns Verlag KG, Munich, 1984-1986.—12 volumes to date.

The "*Münchner Gemeinschaftskommentar,*" a commentary on the European Patent Convention, the first four instalments of which were published in 1984, has now grown to 12 volumes. The original impression[1] is confirmed by the recently published volumes. This work offers a comprehensive presentation of the patent system established by the European Patent Convention, enlightening its historical background as well as commenting on its Regulations in a most detailed and exhaustive manner.

The excellent quality of this in-depth commentary is due to the skill and experience of the authors: Dr. Kurt Haertel, former President of the German Patent Office (author, among others, of the chapter on the historical development of European patent law); Professor Friedrich-Karl Beier, Managing Director of the Max Planck Institute for Foreign and International Patent, Copyright and Competition Law ("The European Patent System"); Professor Gerhard Schricker, Director of the same Institute (coordinator of this impressive work together with Dr. Haertel and Professor Beier); Dr. Hans Ballreich, former Secretary General of the Max-Planck Gesellschaft, Munich (who comments on the legal status of the European Patent Organisation); Dr. Otto Bossung, member of the Boards of Appeal of the European Patent Office (dealing with the particulars of European patent applications); Hans-Peter Dornow, Vice-President of the European Patent Office (author of the chapters on the budgetary structure and the fee system of the European Patent Organisation); Dr. Günter Gall, Director of the Division for Legal Questions of the European Patent Office (who comments on Articles 51 and 86 of the European Patent Convention, containing rules relating to fees); Dr. Hans-Peter Kunz-Hallstein, attorney at law and member of the Max Planck Institute for Foreign and International Patent, Copyright and Competition Law (Protocol on Privileges and Immunities of the European Patent Organisation); Dr. Jochen Pagenberg, attorney at law and member of the same Institute (who comments on Articles 56 (inventive step) and 57 (industrial applicability) of the Convention); Dr. Romuald Singer, former President of the Legal Board of Appeal of the European Patent Office (on Articles 94 to 98 of the Convention, dealing with the particulars of the request for examination of a European patent application and the examination procedure); Dr. Dieter Stauder, member of the Max Planck Institute for Foreign and International Patent, Copyright and Competition Law (Protocol on Recognition); Dr. Joseph Straus, member of the same Institute (author, among others, of the comments on Articles 92 and 93 of the Convention concerning the drawing up of a European search report and the publication of a European patent application, and of the survey on the jurisdiction and bibliography referring to European patent law); Johan Strebel, member of the Legal Division of the European Patent Office (introduction to, and particulars of, the granting procedure); and Dr. Rudolf Teschemacher, Head of the Legal Division of the European Patent Office (who comments on unity of invention, disclosure of invention and patent claims).

The published instalments are proof of the authors' extensive experience of the European Patent Convention. This commentary, which, it is hoped, will soon be completed with the volumes still missing, will be of great value to all those seeking information on the principles and provisions of the Convention.

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[1] See *Industrial Property*, 1984, p. 426.

Semiconductor Chip Protection, by R.H. Stern. Law and Business/Harcourt Brace Jovanovich, New York and Washington, D.C., 1986.—723 pages.

This book is an extremely comprehensive treatise on the Semiconductor Chip Protection Act (SCPA) of 1984 of the United States of America, which creates a special system of protection for "maskworks" (i.e., layout-designs of integrated circuits). Mr. Stern's book is clearly intended to be an important reference work in this new field of intellectual property law.

The book is arranged in a similar way to classic texts on patent law. Thus, the core of the book consists of chapters on: registration; infringement (establishing liability); infringement (defenses); procedure in infringement actions; and remedies for infringement. For each topic, the author analyzes the relevant provisions of the SCPA, and, where doubts exist as to the interpretation of those provisions, there follows a discussion of the precedents from patent and copyright law which may influence the courts when resolving those doubts. Further guidance is provided by the many references to the legislative history of the SCPA and the regulations of the Copyright Office (which administers the registration procedure under the SCPA).

One of the chapters concerns international issues, and WIPO's work is referred to. Other chapters deal with the background to the enactment of the SCPA; transitional provisions; administrative enforcement of the SCPA; the relationship between the SCPA and other United States laws; the effect of the SCPA on the evolution of future United States laws; and licensing. The very full appendices contain much useful material and, in addition, there is a glossary of terms used in the semiconductor industry. Clearly, this work will prove to be an indispensable tool for all those concerned with the legal protection of integrated circuits.

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Calendar of Meetings

WIPO Meetings

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

1987

January 12 (Geneva) — Information Meeting for Non-Governmental Organizations on Intellectual Property

January 26 to 31 and February 3 (Geneva) — Consultative Meeting on the Revision of the Paris Convention (Second Session)

February 23 to 27 (Geneva) — Nice Union: Preparatory Working Group

March 9 to 13 (Geneva) — Permanent Committee for Development Cooperation Related to Copyright and Neighboring Rights

March 23 to 27 (Geneva) — Committee of Experts on the Harmonization of Certain Provisions in Laws for the Protection of Inventions (Third Session)

March 31 to April 4 (Geneva) — Permanent Committee on Patent Information (PCPI): Working Group on General Information

April 6 and 7 (Geneva) — Permanent Committee on Patent Information (PCPI)

April 27 to 30 (Geneva) — Committee of Experts on Intellectual Property in Respect of Integrated Circuits (Third Session)

May 4 to 19 (Geneva) — Permanent Committee on Patent Information (PCPI): Working Group on Search Information

May 5 to 8 (Geneva) — Permanent Committee for Development Cooperation Related to Industrial Property

May 11 to 13 (Geneva) — Vienna Union: Working Group on the International Classification of the Figurative Elements of Marks

May 11 to 15 (Paris) — Committee of Governmental Experts on Dramatic, Choreographic and Musical Works (convened jointly with Unesco)

May 18 to 23 and 26 (Geneva) — Consultative Meeting on the Revision of the Paris Convention (Third Session)

May 25 to 29 (Geneva) — Committee of Experts on the Protection Against Counterfeiting (Second Session)

June 1 to 4 (Geneva) — Madrid Union: Working Group on Links Between the Madrid Agreement and the Proposed (European) Community Trade Mark

June 11 to 19 (Washington) — Permanent Committee on Patent Information (PCPI): Working Groups on Special Questions and on Planning

June 22 to 30 (Geneva) — Berne Union: Executive Committee (Extraordinary Session) (sitting together, for the discussion of certain items, with the Intergovernmental Committee of the Universal Copyright Convention)

June 29 to July 3 (Geneva) — Paris Union: Committee of Experts on Biotechnological Inventions and Industrial Property (Third Session)

July 1 to 3 (Geneva) — Rome Convention: Intergovernmental Committee (Ordinary Session) (convened jointly with ILO and Unesco)

July 6 to 8 (Geneva) — Budapest Union: Assembly (Extraordinary Session)

September 7 to 11 (Geneva) — Permanent Committee on Patent Information (PCPI): Working Group on Patent Information for Developing Countries

September 14 to 19 and 23 (Geneva) (to be confirmed) — Consultative Meeting on the Revision of the Paris Convention (Fourth Session)

September 21 to 30 (Geneva) — Governing Bodies (WIPO General Assembly, Conference and Coordination Committee; Assemblies of the Paris, Madrid, Hague, Nice, Lisbon, Locarno, IPC, PCT, Budapest, TRT, Vienna and Berne Unions; Conferences of Representatives of the Paris, Hague, Nice and Berne Unions; Executive Committees of the Paris and Berne Unions; Committee of Directors of the Madrid Union; Council of the Lisbon Union): Ordinary Sessions

October 5 to 9 (Geneva) — Committee of Governmental Experts on Works of Applied Art (convened jointly with Unesco)

November 2 to 6 (Geneva) — Committee of Experts on the Harmonization of Certain Provisions in Laws for the Protection of Inventions (Fourth Session)

December 1 to 4 (Geneva) — Committee of Governmental Experts on the Printed Word (convened jointly with Unesco)

Other Meetings Concerned with Industrial Property

1987

January 26 to 30 (Strasbourg) — Center for the International Study of Industrial Property: Seminar on Legal Problems Concerning the European Patent Convention, the Paris Convention for the Protection of Industrial Property, the Patent Cooperation Treaty and the Community Patent Convention

June 1 to 5 (Vienna) — European Patent Organisation: Administrative Council

July 20 to 22 (Cambridge) — International Association for the Advancement of Teaching and Research in Intellectual Property: Annual Meeting

December 7 to 11 (Munich) — European Patent Organisation: Administrative Council