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Contents

INTERNATIONAL UNIONS

- Nice Agreement. Ratification of the Stockholm Act:
Application to the Faroë Islands. Denmark 222
- Locarno Agreement. Ratification. Soviet Union 222

CONVENTIONS NOT ADMINISTERED BY WIPO

- European Convention on the International Classification of Patents for Invention.
Denunciation by the United Kingdom 222

WIPO MEETINGS

- ICIREPAT. Technical Coordination Committee 223

LEGISLATION

- Germany (Federal Republic). I. Law on Employees' Inventions, 1957 (as amended) 226
- II. Directives on the Compensation to be Paid for Employees' Inventions, 1959 233
- Italy. Decrees concerning Temporary Protection at Exhibitions 242

GENERAL STUDIES

- The Threat to our Environment and the Protection of Intellectual Property
(Rudolf E. Blum) 243
- Employees' Inventions — Law and Practice in the Federal Republic of Germany
(Hans Schade) 249

LETTERS FROM CORRESPONDENTS

- Letter from Italy (Remo Franceschelli) 255

NEWS FROM PATENT OFFICES

- India 259

CALENDAR

- 260

- Vacancies in WIPO 262

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WIPO MEETINGS

ICIREPAT

Technical Coordination Committee

Seventh and Eighth Sessions

(Geneva, February 23 to 25, 1972, and July 5 to 7, 1972)

Note *

The seventh and eighth sessions of the Technical Coordination Committee of ICIREPAT (hereinafter referred to as "the Committee") were both chaired by Mr. G. Borggård, Director General of the Swedish Patent Office. At the eighth session Mr. Borggård was reelected Chairman, and Mr. P. van Waasbergen, Technical Director of the International Patent Institute (The Hague), Vice-Chairman of the Committee for the next three years. The lists of participants follow this Note.

This Note summarizes the main results of the said two sessions.

Suggestions of the Technical Committees. The Committee approved a recommendation concerning the recording of application numbers of patent documents on magnetic tape. The recommendation enumerates the following basic principles, in relation to a recording field comprising eight character positions:

The following are not to be recorded in the eight character positions:

(a) letters and numbers relating, for example, to the examination division or classification of a document, and not essential for defining the application number;

(b) letters and numbers indicating the kind of document, for example, patent or utility model;

(c) dots, dashes and slashes between the numerical and the year positions of an application number.

Numbers, and numbers having terminal year indicatives, are to be right adjusted in the field; letters preceding the numerical part of the application "number" are to be left adjusted in the field. Positions between the last letter and the first number are to be filled with zeros.

Left zeros, in the case of a simple number having fewer than eight digits, are preferably to be omitted and the positions left blank.

Also approved was the addition of two new subrecords, relating to filing data and publication dates, to the existing recommendation concerning the magnetic tape format for data exchange (Standard SI. 13).

Minor amendments to the sections of the ICIREPAT Manual dealing with the Guiding Principles for Non-Conventional Retrieval Systems and the Guide for the Implementation of Cooperative Indexing for Shared Use Systems in

Stages 5 and 6 were agreed upon. The first amendment introduces the concepts "field subject" and "universal subject," while the second gives punched cards and magnetic tape the same status as coding sheets for the exchange of indexing results.

Finally, the Committee approved a recommendation concerning (a) the use of INID codes on the front page of a patent document and in entries in an official gazette and (b) the minimum of bibliographic data to be provided on such a front page and in such entries. The acronym INID stands for "ICIREPAT Numbers for the Identification of Data," the data concerned being essentially bibliographic data. The new recommendation supersedes the existing recommendation concerning INID codes, which is already used by many Patent Offices, and will become effective for use on January 1, 1973, after which date the old INID codes should no longer be used. The text of the recommendation follows this Note.

Reassessment of the Shared Systems Program. On the basis of a study carried out by the Technical Committee for Shared Systems, the Committee formulated general proposals for the reorientation of the shared systems program. It was considered that the most important causes of limited acceptability of the shared systems program were:

- (a) failure to honor commitments in respect of cooperation in individual systems;
- (b) delays in system development;
- (c) comparative costs of establishing ICIREPAT coordinate indexing systems and of reclassifying manual files;
- (d) lack of means for ready access to responding documents in a mechanized search.

The Committee agreed that the International Patent Classification should be used for the selection and demarcation of fields for ICIREPAT information retrieval systems, that access to responding documents must be improved, and that abstracts could advantageously be used as a screen in searching. Regarding the last point the Committee proposed that guidelines for the writing of suitable abstracts should be elaborated.

The Committee concluded that the construction and implementation of future search systems should become part of a more broadly-based program than had been envisaged hitherto, and enumerated several items to be examined in order to promote shared-use system activity.

ICIREPAT Budget. The Committee endorsed the recommendation of the ICIREPAT Financing Working Group concerning the allocation of special contributions to the ICIREPAT Budget. The recommendation is that the contributions of participating countries of ICIREPAT be computed as follows:

(a) "Median figure" means the half of the sum of (i) the number of applications for patents and inventors' certificates

* This Note has been prepared by the International Bureau on the basis of the official documents of the session.

filed in the country in a given year and (ii) the number of patents and inventors' certificates granted in that country in that year; for countries without a full examination system, the median figures will be halved.

(b) The "base period" is five years, and the "effective period" of any calculation is three years, except that the next effective period is four years.

(c) For the effective period 1973 to 1976, the base period is 1966 to 1970; for the effective period 1977 to 1979, the base period is 1970 to 1974, and so on.

(d) Each country whose median figure for the base period exceeds 200,000 should pay 13% of the total contributions budgeted for each year of the effective period.

(e) Each country whose median figure for the base period is under 10,000 should pay 1/2% of the total contributions budgeted for each year of the effective period.

(f) The remainder of the total contributions budgeted for each year of the effective period — that is, the difference between the said total and the amounts covered under (d) and (e) — should be divided among the countries not covered under (d) and (e) in the same proportion as the median figure of each of them in the base period stands to the total of their median figures for that period, and each such country should pay the corresponding amount for each year of the effective period, provided that if for any country the calculation indicates a contribution in excess of 13% of the total contributions budgeted for any year, such country will be treated as if it were covered by (d) above (that is, it will contribute 13%).

(g) If, during the effective period, one or more countries become or cease to be participating countries, the contributions will be recalculated for the remaining year or years of the effective period according to the foregoing principles.

UNISIST. The International Bureau of WIPO was asked by the Committee to keep a close watch on the implementation of UNISIST¹ within Unesco, to determine the extent to which UNISIST will deal with matters of direct interest to WIPO and more particularly to ICIREPAT.

Program for 1973. The Committee prepared a proposal for a draft program of ICIREPAT for 1973. The program will be published in *Industrial Property* and *La Propriété industrielle* as soon as adopted by the Executive Committee of the Paris Union.

* * *

Recommendation concerning Bibliographic Data

(Identification by INID Codes and Minimum Required)

on the First Page of a Patent Document and in Entries in an Official Gazette

Introduction

1. The recommendation STAC III No. 62d of September 1967 provides for means whereby the various data appearing on the first page of a patent document can be identified without knowledge of the language used and the laws applied. This

¹ Intergovernmental Conference for the establishment of a World Science Information System.

recommendation is already successfully applied by various Patent Offices.

2. The recommendation STAC III No. 77a of September 1967 likewise provides for means whereby the various data appearing in entries in official gazettes and like publications can be identified.

3. It was considered necessary to revise these recommendations in certain respects in the light of experience with their use.

4. It was also considered necessary to include in the recommendation an indication of the minimum bibliographic data to be provided on the first page of such a document, and in an entry in such a gazette, in order to give the information required for subject-matter and legal patent searches, including finding patent families, and for documentation purposes, such as the compiling of indexes.

Definitions

5. "Patent documents" includes patents, inventors' certificates, utility models or certificates, and applications therefor. "Documents" means patent documents unless otherwise stated.

6. "Making available to the public" means (a) publication by printing or similar process or (b) laying open for public inspection and copying on request.

7. "Entry in an official gazette" means at least one comprehensive announcement in an official gazette, regarding the making available to the public of the complete text, claims (if any) and drawings (if any) of a patent document.

8. "INID" is an acronym for "ICIREPAT Numbers for the Identification of Data."

General

9. The list of definitions of bibliographic data elements with their corresponding INID codes is given below. The INID codes which are preceded by a single asterisk (*) relate to those data elements which are considered to be the minimum elements which should appear on the first page of a document, and in an entry in an official gazette. The INID codes which are preceded by a double asterisk (**) relate to those data elements which are considered to be minimum elements in circumstances specified in the accompanying notes.

10. The INID codes should be associated with the corresponding data elements in so far as these elements normally appear on the first page of the document or in the entry in the official gazette. The INID codes should preferably be indicated using Arabic numerals within small circles or — if this is not feasible — in parentheses, immediately before the corresponding data element. Provided the presentation of bibliographic data elements in entries in an official gazette is uniform INID codes may be applied to the data elements in a representative specimen entry in each gazette issued, instead of being included in each entry.

11. If data elements to which INID codes are assigned in accordance with this recommendation do not appear on the first page of a document or in an entry in an official gazette

— because they are not applicable (e. g. when no priority is claimed) or for some other reason — it is not necessary to call attention to the non-existence of such elements (e. g. by leaving a space or by providing the relevant INID code followed by a dash).

12. Two or more INID codes may be assigned to a single data element when necessary.

13. The list of data elements has been organized into categories (10, 20 . . . 70) to facilitate grouping of related elements. Each category has two or more sub-divisions to each of which an INID code has been assigned. If none of the specific codes can be assigned to a data element which clearly falls within the category definition, the relevant category code, ending in 0, should be used.

14. In order that the users of patent documents and official gazettes may be enabled to make maximum use of these INID codes, it is recommended that a list of the codes be published in Patent Office or other official publications, e. g. official gazettes, at regular intervals.

Implementation

15. It is, of course, open to each Patent Office to implement this recommendation either in its entirety or to some lesser extent, whichever it finds more convenient.

(10) Document identification

* (11) Number of the document

** (19) ICIREPAT country code, or other identification, of the country publishing the document

(** Minimum data element for documents only)

(20) Domestic filing data

* (21) Number(s) assigned to the application(s), e. g. " Numéro d'enregistrement national ", " Aktenzeichen "

* (22) Date(s) of filing application(s)

* (23) Other date(s) of filing, including exhibition filing date and date of filing complete specification following provisional specification

(30) Convention priority data

* (31) Number(s) assigned to priority application(s)

* (32) Date(s) of filing of priority application(s)

* (33) Country (countries) in which priority application(s) was (were) filed

(40) Date(s) of making available to the public

** (41) Date of making available to the public by viewing, or copying on request, an unexamined document, on which no grant has taken place on or before the said date

** (42) Date of making available to the public by viewing, or copying on request, an examined document, on which no grant has taken place on or before the said date

** (43) Date of publication by printing or similar process of an unexamined document, on which no grant has taken place on or before the said date

** (44) Date of publication by printing or similar process of an examined document, on which no grant has taken place on or before the said date

** (45) Date of publication by printing or similar process of a document, on which grant has taken place on or before the said date

(46) Date of publication by printing or similar process of the claim(s) only of a document

** (47) Date of making available to the public by viewing, or copying on request, a document on which grant has taken place on or before the said date

(** Minimum data element for documents only, the minimum data requirement being met by indicating the date of making available to the public the document concerned)

(50) Technical information

* (51) International Patent Classification

(52) Domestic or national classification

(53) Universal Decimal Classification

* (54) Title of the invention

(55) Keywords

(56) List of prior art documents, if separate from descriptive text

(57) Abstract or claim

(58) Field of search

(60) Reference(s) to other legally related domestic document(s)

* (61) Related by addition(s)

* (62) Related by division(s)

* (63) Related by continuation(s)

* (64) Related by reissue(s)

(70) Identification of parties concerned with the document

[(75) and (76) are intended primarily for use by countries in which the national laws require that the inventor and applicant are normally the same. In other cases (71) and (72) or (71), (72) and (73) should generally be used]

** (71) Name(s) of applicant(s)

(72) Name(s) of inventor(s) if known to be such

** (73) Name(s) of grantee(s)

(74) Name(s) of attorney(s) or agent(s)

** (75) Name(s) of inventor(s) who is (are) also applicant(s)

** (76) Name(s) of inventor(s) who is (are) also applicant(s) and grantee(s)

(** For documents on which grant has taken place on or before the date of making available to the public, and gazette entries relating thereto, the minimum data requirement is met by indicating the grantee, and for other documents by indicating the applicant)

Lists of Participants *

Seventh Session

I. States

France: D. Cuvelot; A. Sainte-Marie. Germany (Federal Republic): G. Gehring; S. Zimmer; W. Weiss. Japan: M. Kuroda. Netherlands: G. Koelewijn. Sweden: G. Borggård; T. Gustafson. United Kingdom: D. Gay; D. Snow. United States of America: R. Spencer.

II. Organization

International Patent Institute: P. van Waasbergen; L. Knight.

III. Observer States

Denmark: D. Simonsen (Mrs.). Norway: E. Kjeldsen. Spain: A. Fernandez-Mazarambroz; A. Sagarminaga.

* Lists containing the titles and functions of the participants may be obtained from the International Bureau upon request.

IV. Chairmen of the Technical Committees and ABCS

Chairman of TCCR: R. Spencer; Chairman of TCSS: L. Knight; Chairman of ABCS: D. Snow; Chairman of the Subcommittee on Organic Chemistry: E. Kjeldsen.

V. Officers

Chairman: G. Borggård; Vice-Chairman: P. van Waasbergen; Secretary: P. Claus.

VI. WIPO

K. Pfanner (Senior Counsellor, Head, Industrial Property Division); P. Claus (Technical Counsellor, Head, ICIREPAT Section, Industrial Property Division); C. Gadd (Technical Assistant, ICIREPAT Section); V. Roslov (Technical Assistant, ICIREPAT Section); P. McDonnell (Miss) (Technical Consultant, US Patent Office).

Eighth Session

I. States

France: D. Cuvelot; M. Monka (Miss). Germany (Federal Republic): S. Zimmer; W. Weiss. Japan: K. Takami. Netherlands: G. Koelewijn.

Sweden: G. Borggård; T. Gustafson. United Kingdom: D. Gay; D. Snow. United States of America: R. Spencer.

II. Organization

International Patent Institute: P. van Waasbergen; L. Knight.

III. Chairmen of the Technical Committees and ABCS

Chairman of TCCR: R. Spencer; Chairman of TCSS: L. Knight; Chairman of ABCS: D. Snow; Chairman of the Subcommittee on Organic Chemistry: E. Kjeldsen.

IV. Officers

Chairman: G. Borggård; Vice-Chairman: P. van Waasbergen; Secretary: P. Claus.

V. WIPO

K. Pfanner (Senior Counsellor, Head, Industrial Property Division); P. Claus (Technical Counsellor, Head, ICIREPAT Section, Industrial Property Division); C. Gadd (Technical Assistant, ICIREPAT Section); V. Roslov (Technical Assistant, ICIREPAT Section); P. McDonnell (Miss) (Technical Consultant, US Patent Office).

LEGISLATION

GERMANY (Federal Republic)

I

Law on Employees' Inventions

(of July 25, 1957; as amended on October 1, 1957, June 30, 1959, March 23, 1961, October 1, 1968 and June 27, 1970)

CONTENTS

Chapter I — Application and Definition Sections

Application of the Law	1
Inventions	2
Technical Improvement Proposals	3
Service Inventions and Free Inventions	4

Chapter II — Inventions and Technical Improvement Proposals Made by Employees in Private Employment

1. Service Inventions

Duty to Report	5
Claiming a Service Invention	6
Effect of the Claim	7
Service Inventions Becoming Free	8
Compensation for an Unlimited Claim	9
Compensation for a Limited Claim	10
Directives Governing Compensation Payments	11
Ascertaining or Fixing Compensation	12

Application for Domestic Industrial Property Protection	13
Application for Industrial Property Protection Abroad	14
Mutual Rights and Duties in Acquiring Industrial Property Protection	15
Abandoning Industrial Property Applications or Granted Industrial Property Rights	16
Trade Secrets	17
2. Free Inventions	
Duty to Notify	18
Duty to Offer	19
3. Technical Improvement Proposals	
4. Common Provisions	
Inventors' Consultants	21
Mandatory Applicability (<i>Unabdingbarkeit</i>)	22
Inequitable Agreements	23
Duty of Secrecy	24
Duties Arising from Employment	25
Termination of Employment	26
Bankruptcy	27
5. Arbitration Proceedings	
Amicable Settlement Procedure	28
Establishment of the Arbitration Board	29
Membership of the Arbitration Board	30
Appeals to the Arbitration Board	31
Requests for Enlargement of the Arbitration Board	32
Proceedings before the Arbitration Board	33

	Sections
Settlement Proposals of the Arbitration Board	34
Termination of Arbitration Proceedings Without Result	35
Costs of Arbitration Proceedings	36

6. Judicial Proceedings

Requisites for Instituting Proceedings	37
Action for Reasonable Compensation	38
Jurisdiction	39

Chapter III — Inventions and Technical Improvement Proposals Made by Employees in Public Service, Civil Servants and Members of the Armed Forces

Employees in Public Service	40
Civil Servants and Members of the Armed Forces	41
Special Provisions for Inventions Made by Teachers and Assistants at Universities	42

Chapter IV — Transitional and Final Provisions

Inventions and Technical Improvement Proposals Made prior to Entry into Force of this Law	43
Pending Proceedings	44
Implementing Provisions	45
Provisions Repealed	46
Special Provisions for Berlin	47
(Repealed)	48
Entry into Force	49

Chapter I — Application and Definition

Application of the Law

1. — This Law applies to inventions and to technical improvement proposals made by employees in private employment, by employees in public service, by civil servants, and by members of the armed forces.

Inventions

2. — Inventions within the meaning of this Law are only those which may be the subject of a patent or of protection as a utility model.

Technical Improvement Proposals

3. — Technical improvement proposals within the meaning of this Law are proposals for other technical innovations that may not be the subject of a patent or of protection as a utility model.

Service Inventions and Free Inventions

4. — (1) Employees' inventions within the meaning of this Law may be either tied or free.

(2) Tied inventions (service inventions) are those made during the term of employment which:

- (i) either resulted from the employee's tasks in the private enterprise or in the public authority,
- (ii) or are essentially based upon the experience or activities of the enterprise or public authority.

(3) Other inventions of an employee shall be free inventions. They shall however be subject to the limitations contained in Sections 18 and 19 below.

(4) Subsections (1) to (3) shall apply mutatis mutandis to inventions made by civil servants and members of the armed forces.

Chapter II — Inventions and Technical Improvement Proposals Made by Employees in Private Employment

1. Service Inventions

Duty to Report

5. — (1) Any employee making a service invention shall be under a duty to report the invention to his employer immediately in a special written notice indicating that said writing constitutes the report of an invention. Where two or more employees have contributed to making the invention, a joint notice may be filed. The employer shall inform his employee without delay and in writing of the date the report was received.

(2) In the report, the employee must describe the technical problem, its solution and how he arrived at the service invention. Any existing notes necessary for an understanding of the invention shall be attached. The report shall include the service instructions and directions received by the employee, the experience and activities in the enterprise of which use was made, the employee's co-workers and the nature and extent of their contribution, and the report should underline the contribution which the employee making the report considers to be his own.

(3) A report which does not meet the requirements of subsection (2) shall be deemed to be in order unless the employer requests further particulars within two months, stating the points in the report which are to be supplemented. To the extent necessary, he must assist the employee in supplementing the invention report.

Claiming a Service Invention

6. — (1) An employer may claim a service invention by means of an unlimited or a limited claim.

(2) Such claim shall be made in a written statement, addressed to the employee. It shall be made as soon as possible, and no later than four months from the receipt of a proper report (Section 5(2) and (3)).

Effect of the Claim

7. — (1) On the receipt of a written declaration of an unlimited claim, all rights in the service invention shall pass to the employer.

(2) On the receipt of a written declaration of a limited claim, a non-exclusive right to use the service invention shall pass to the employer. Should an employer's right of use unreasonably impede an employee's further exploitation of his invention, the employee may request that, within a period of two months, his employer either make an unlimited claim to the service invention or release it to the employee.

(3) Dispositions of a service invention made by an employee before his employer has declared a claim, shall have no effect on his employer, insofar as the employer's rights are concerned.

Service Inventions Becoming Free

8. — (1) A service invention shall become free:

- (i) where the employer releases it by a written statement;

- (ii) where the employer makes a limited claim to it, subject to the employer's right to use the invention in accordance with Section 7(2);
- (iii) where the employer has not made a claim to it within four months upon receiving a proper invention report (Section 5(2) and (3)) or, for cases falling under Section 7(2), within two months of the request filed by his employee.

(2) The employee may dispose of a service invention that has become free and the restrictions in Sections 18 and 19 shall not apply.

Compensation for an Unlimited Claim

9. — (1) The employee shall have a right to reasonable compensation as against his employer, as soon as the employer has made an unlimited claim to a service invention.

(2) In assessing compensation, due consideration shall in particular be given to the commercial applicability of the service invention, the duties and position of the employee in the enterprise, and the enterprise's contribution to the invention.

Compensation for a Limited Claim

10. — (1) The employee shall have a right to reasonable compensation as against his employer, as soon as the employer has made a limited claim to a service invention and has used it. Section 9(2) shall apply *mutatis mutandis*.

(2) After having stated a claim to a service invention, an employer may not, in dealing with his employee, contest the invention's eligibility, at the time of the claim, for industrial property protection unless a decision to this effect has been rendered by the Patent Office or a court of law. The employee's right to such compensation as becomes payable before the decision has force of law shall not be affected thereby.

Directives Governing Compensation Payments

11. — After hearing leading organizations representing employers and employees (in accordance with Section 10a of the Law on Collective Bargaining Agreements), the Federal Minister of Labor shall issue Directives for assessing compensation¹.

Ascertaining or Fixing Compensation

12. — (1) The nature and amount of compensation shall be established by agreement between the employer and the employee within a reasonable time after the claim to a service invention.

(2) Where two or more employees have contributed to a service invention, compensation shall be determined separately for each of them. The employer must notify the employees of the total amount of compensation awarded and of the share assigned to each inventor.

(3) Where no compensation agreement is concluded within a reasonable time after a claim to a service invention was made, the employer shall fix the amount of compensation,

¹ These Directives were issued on July 20, 1959, for employees in private employment; on December 1, 1960, for employees in public service. See page 233 below.

giving his reasons in writing to the employee, and shall pay in accordance with his settlement. For unlimited claims to a service invention, compensation must be fixed within three months from the grant of the industrial property protection; for limited claims, it must be fixed within three months from when the invention began to be used.

(4) An employee who disagrees with the settlement may object thereto in writing within two months. If he does not object, the settlement shall be binding upon both parties.

(5) Where two or more employees have contributed to the service invention, the settlement shall not bind any of them if one of them objects on the ground that his contribution to the service invention has been incorrectly determined. In this case, the employer may make a new compensation settlement for all parties.

(6) Both the employer and the employee may require the other to consent to a different compensation arrangement, if a substantial change has occurred in the circumstances essential to ascertaining or fixing the compensation. A refund of compensation payments already received may not be requested. Subsections (1) to (5) shall not be applicable.

Application for Domestic Industrial Property Protection

13. — (1) An employer shall be under a duty — and he shall be solely entitled — to apply for domestic industrial property protection for a service invention reported to him. Where the invention is capable of patent protection, he shall apply for a patent unless, on an evaluation of the industrial applicability of the service invention, protection as a utility model appears more appropriate. The application shall be filed without delay.

(2) An employer's obligation to file such an application shall terminate:

- (i) where the service invention has become free (Section 8(1));
- (ii) where the employee has agreed that no application is to be filed;
- (iii) where the conditions contained in Section 17 are present.

(3) Where, after making an unlimited claim to a service invention, an employer does not comply with his duty to apply for industrial property protection and also fails to do so within a reasonable additional period fixed by the employee, the employee may file an industrial property application for the service invention in the employer's name and at the employer's expense.

(4) Where a service invention has become free, only the employee shall be entitled to apply for industrial property protection therefor. Should his employer already have applied for industrial property protection for the service invention, his rights resulting from such application shall pass to the employee.

Application for Industrial Property Protection Abroad

14. — (1) After making an unlimited claim to a service invention, an employer shall also be entitled to apply for industrial property protection abroad.

(2) For foreign countries in which an employer does not desire to acquire industrial property rights, he shall release the service invention to the employee and shall, upon request, enable the employee to acquire such rights. The release must be effected in sufficient time for the employee to take advantage of the priority dates under international treaties in the field of industrial property.

(3) At the time of releasing a service invention under subsection (2), an employer may reserve for himself a non-exclusive right to use the service invention in the foreign countries concerned, against reasonable compensation, and may require the employee, also against reasonable compensation, to respect the employer's obligations arising from contracts existing at the time of the invention's release, while the employee is exploiting the service invention released to him.

Mutual Rights and Duties in Acquiring Industrial Property Protection

15. — (1) Upon filing an industrial property application for a service invention, an employer must give his employee copies of the application documents. He must keep his employee informed of the progress of the application procedure and, if requested, must allow him to inspect the correspondence.

(2) If requested to do so, the employee must assist his employer in acquiring the industrial property rights and shall be obliged to make the necessary statements.

Abandoning Industrial Property Applications or Granted Industrial Property Rights

16. — (1) Where an employer, before fully meeting his employee's demand for reasonable compensation, intends to stop prosecuting an industrial property application for a service invention, or to surrender an issued grant or registration, he must inform his employee accordingly and, at the employee's request and expense, must assign the rights to him and turn over to him any documents necessary to maintain the rights.

(2) An employer shall be entitled to surrender an issued grant, if his employee does not request assignment thereof within three months from receipt of the communication made to the employee.

(3) At the time of making the communication provided for in subsection (1), the employer may reserve for himself, against payment of reasonable compensation, a non-exclusive right to use the service invention.

Trade Secrets

17. — (1) Where the legitimate interests of the enterprise require that a service invention reported to him should not be disclosed, the employer may refrain from applying for industrial property protection, provided that he acknowledges to his employee that the service invention is capable of protection.

(2) If an employer does not acknowledge that a service invention is capable of protection, he need not apply for industrial property protection if he requests the Arbitration

Board (Section 29) to seek an agreement on the service invention's eligibility for protection².

(3) In fixing the compensation for an invention under subsection (1), account must also be taken of the economic disadvantages that result for the employee due to the fact that industrial property protection has not been accorded to the service invention.

2. Free Inventions

Duty to Notify

18. — (1) An employee who has made a free invention during the term of an employment contract shall notify his employer in writing thereof without delay. He shall give the employer all the details — concerning the invention and, if necessary, concerning its realization — which the employer may need in order to judge whether it is in fact a free invention.

(2) Where the employer does not contest that the invention notified to him is a free invention, by written declaration to the employee within three months of the notification, he may no longer claim the invention as a service invention.

(3) There shall be no obligation to notify the employer of a free invention if the invention is obviously not capable of being used in the employer's enterprise.

Duty to Offer

19. — (1) Before exploiting a free invention further during the term of his employment contract, an employee must offer his employer at least a non-exclusive right to use the invention on reasonable terms, if the invention falls within the range of the actual or planned activities of the employer's enterprise at the time the offer is made. Such offer may be submitted together with the notification required by Section 18.

(2) Where the employer does not accept the offer within three months, his prerogative shall lapse.

(3) Where the employer states within the time provided by subsection (2) that he intends to acquire the rights offered to him, but claims that the terms offered to him are not reasonable, the court shall determine the terms upon a declaratory action by the employer or employee.

(4) The employer or the employee may request a new determination of the terms, if the circumstances essential to the terms agreed or fixed have changed substantially.

3. Technical Improvement Proposals

20. — (1) For technical improvement proposals which afford the employer an advantaged position similar to that obtained from an industrial property right, an employee shall be entitled to reasonable compensation from his employer as soon as the latter exploits the proposal. Sections 9 and 12 shall apply mutatis mutandis.

² Text changed in accordance with Section 5 of the Law Amending the Patent Law, Trademark Law, and other Laws, of September 4, 1968, effective October 1, 1968.

(2) In all other cases, technical improvement proposals shall be regulated by collective agreements or single-plant bargaining.

4. Common Provisions

Inventors' Consultants

21. — (1) One or more inventors' consultants may be appointed in an enterprise by agreement between the employer and the works council.

(2) The inventors' consultants shall have the task of helping employees draft the invention report (Section 5) or the notification of an invention (Section 18) and, at the request of the employer and employee, of participating in the determination of reasonable compensation.

Mandatory Applicability (Unabdingbarkeit)

22. — The provisions of this Law may not be modified by contract to the detriment of the employee. Agreements shall however be permissible concerning service inventions after they have been reported and concerning free inventions and technical improvement proposals (Section 20(1)) after their notification.

Inequitable Agreements

23. — (1) Agreements concerning service inventions, free inventions, or technical improvement proposals (Section 20(1)) permitted by this Law, shall be null and void to the extent that they are manifestly inequitable. This provision shall apply also to compensation settlements (Section 12(4)).

(2) The employer and employee may invoke the inequity of an agreement or compensation settlement only if they do so, by written statement addressed to the other party, within six months following termination of the employment contract.

Duty of Secrecy

24. — (1) An employer must maintain secrecy concerning an employee's invention that has been reported or notified to him, as long as required by the legitimate interests of the employee.

(2) An employee must keep a service invention secret as long as it has not become free (Section 8(1)).

(3) Other persons who have had knowledge of an invention on the basis of this Law may neither utilize their knowledge nor make it public.

Duties Arising from Employment

25. — Other duties arising for the employer and employee under their employment relationship shall not be affected by this Law unless the position is otherwise, due to the fact that an invention has become free (Section 8(1)).

Termination of Employment

26. — The rights and duties arising from this Law shall not be affected by termination of the employment relationship.

Bankruptcy

27. — (1) Where bankruptcy proceedings are instituted against an employer, the employee shall have a pre-emptive

right to his own service inventions to which the employer has made an unlimited claim, provided the trustee in bankruptcy of the estate disposes of them independently of the enterprise.

(2) Claims by an employee to compensation for the employer's unlimited claim to a service invention (Section 9), for his right to use the invention (Sections 10, 14(3), 16(3) and 19), or for his exploitation of a technical improvement proposal (Section 20(1)) shall rank, in bankruptcy proceedings against the employer, below the debts set forth in Section 61(i) of the Bankruptcy Rules but above all other debts. If there are two or more such debts, they shall be paid proportionately.

5. Arbitration Proceedings

Amicable Settlement Procedure

28. — In all disputes between employer and employee arising as a result of this Law, petition may be made at any time to the Arbitration Board. The Arbitration Board shall seek an amicable settlement.

Establishment of the Arbitration Board

29. — (1) The Arbitration Board shall be established within the Patent Office.

(2) The Arbitration Board may meet outside its permanent seat.

Membership of the Arbitration Board

30. — (1) The Arbitration Board shall consist of one chairman or his alternate and two assessors (*Beisitzer*).

(2) The chairman and his alternate shall possess the qualifications required for judicial office under the Law on the Judiciary³. They shall be appointed by the Federal Minister of Justice for one year at the beginning of each calendar year⁴.

(3) The assessors shall possess special knowledge in the technical field to which the invention or technical improvement proposal applies. They shall be appointed by the President of the Patent Office, separately for each case, from among the staff members or assistant members (*Hilfsmittglieder*) of the Patent Office.

(4) At the request of a party, the Arbitration Board shall include two other assessors, one chosen from employers and the other from employees. They shall be appointed by the President of the Patent Office, separately for each case, from lists of proposed names. The lists may be put forward by the leading organizations referred to in Section 11 and also by trade unions and independent employees' associations formed for social and professional purposes which are not affiliated to any of the leading organizations, where the members of such unions or associations include a substantial number of employees from whom an inventive contribution may be expected due to the kind of work they are performing in the enterprise.

³ Now: German Law relating to Judges (*Deutsches Richtergesetz*) of September 8, 1961 (*Bundesgesetzblatt*, I, p. 1665).

⁴ Worded in accordance with Section 5(6) of the Sixth Law Amending the Industrial Property Regulations and Adding Provisional Rules thereto, of March 23, 1961.

(5) The President of the Patent Office shall appoint an assessor under subsection (4) from the list of names put forward by the organization to which the party concerned belongs, where the party states, before the members of the Board are appointed, that he is a member of that organization.

(6) The Arbitration Board shall be under the supervision of its chairman; the chairman shall be under the supervision of the Federal Minister of Justice ⁵.

Appeals to the Arbitration Board

31. — (1) Appeals to the Arbitration Board shall be made by petition in writing. The petition shall be lodged in duplicate. It shall contain a brief statement of the facts and the name and address of the other party.

(2) The chairman of the Arbitration Board shall transmit the petition to the other party, inviting him to comment in writing on the petition within a fixed period.

Requests for Enlargement of the Arbitration Board

32. — A request for the enlargement of the Arbitration Board shall be submitted by the party appealing to the Arbitration Board at the time of lodging the petition (Section 31(1)) and by the other party within two weeks from the transmittal of the petition to him (Section 31(2)).

Proceedings before the Arbitration Board

33. — (1) Sections 1032(1), 1035 and 1036 of the Civil Procedure Code shall apply mutatis mutandis to proceedings before the Arbitration Board. Section 1034(1) of the Civil Procedure Code shall apply mutatis mutandis, save that the Arbitration Board may not exclude patent attorneys (*Patentanwälte*), holders of a certificate of representation (*Erlaubnisscheininhaber*, Section 3 of the Second Law Amending the Industrial Property Regulations and Adding Provisional Rules thereto, of July 2, 1949), and representatives of associations falling under Section 11 of the Law on Labor Courts.

(2) In all other cases, the Arbitration Board shall decide on its own procedure.

Settlement Proposals of the Arbitration Board

34. — (1) The Arbitration Board shall take its decisions by a majority vote. Section 196(2) of the Law on the Judiciary shall be applicable.

(2) The Arbitration Board must provide the parties with a settlement proposal. The proposal shall be reasoned and signed by all the Board members. The proposal must also mention the possibility of objection and the consequences of failure to object within the period prescribed. The proposal shall be notified to the parties.

(3) A settlement proposal shall be deemed to be accepted and an agreement corresponding to its content shall be deemed to have been made, unless an objection in writing by

one of the parties reaches the Arbitration Board within one month from the notification of the proposal.

(4) Where unavoidable circumstances have prevented one of the parties from lodging an objection within the period prescribed, he shall, upon petition, be reinstated. The petition must be filed in writing with the Arbitration Board within one month from the moment the impediment ceased to exist. The objection must also be lodged within that period. The petition for reinstatement must state the facts relied upon and the means of substantiating them. After one year from the notification of the settlement proposal, reinstatement may no longer be requested and an objection may no longer be lodged.

(5) The Arbitration Board shall decide on the petition for reinstatement. An immediate appeal against the Board's decision may be lodged with the *Landgericht* ⁶ having jurisdiction in the place of the petitioner's residence, in accordance with the Civil Procedure Code.

Termination of Arbitration Proceedings Without Result

35. — (1) Proceedings before the Arbitration Board shall terminate without result:

- (i) where the other party has not submitted his comments within the period provided in Section 31(2);
- (ii) where the other party has refused to participate in the proceedings before the Arbitration Board;
- (iii) where a written objection has reached the Arbitration Board within the period provided in Section 34(3).

(2) The chairman of the Arbitration Board shall inform the parties of the termination of the arbitration proceedings without result.

Costs of Arbitration Proceedings

36. — Proceedings before the Arbitration Board shall require no fees nor payment of costs.

6. Judicial Proceedings

Requisites for Instituting Proceedings

37. — (1) Any right or legal position that is governed by this Law may be pleaded in judicial proceedings only after proceedings have been held before the Arbitration Board.

(2) This prerequisite shall not be applicable:

- (i) where the rights pleaded in the judicial proceedings are based upon an agreement (Section 12, 19, 22 or 34) or upon the allegation that the agreement is invalid;
- (ii) where six months have passed since the appeal was lodged with the Arbitration Board;
- (iii) where the employee has left the employer's enterprise;
- (iv) where the parties have agreed to refrain from appealing to the Arbitration Board. Such agreement may only be made after the dispute (Section 28) has occurred. The agreement must be in writing.

(3) The fact that both parties have dealt with the substance of the case orally, without relying upon the absence of

⁵ Subsection added in accordance with Section 5(6) of the Law of March 23, 1961 (see footnote ⁴ above).

⁶ A higher first instance court dealing with certain major civil and criminal cases.

any appeal to the Arbitration Board, shall be equated with an agreement under subsection (2) (iv).

(4) The prior appeal to the Arbitration Board shall not be necessary in the case of an application for an attachment order or for a preliminary injunction.

(5) Judicial proceedings following an attachment order or a preliminary injunction shall be admissible, and the restriction in subsection (1) shall not apply, where a party has been given a time limit for instituting proceedings under Section 926 or 936 of the Civil Procedure Code.

Action for Reasonable Compensation

38. — In a dispute as to the amount of compensation, an action may be brought for the payment of a reasonable amount to be fixed by the court.

Jurisdiction

39. — (1) For all disputes concerning employees' inventions, exclusive jurisdiction shall, irrespective of the value in dispute, rest with the courts having jurisdiction in patent litigation (Section 51, Patent Law). The provisions governing procedure in patent litigation shall apply. Section 111(1) and (2) of the Law on Court Costs shall not apply⁷.

(2) Disputes relating solely to claims for the payment of ascertained or fixed compensation for an invention are exempted from the application of subsection (1).

Chapter III — Inventions and Technical Improvement Proposals Made by Employees in Public Service, Civil Servants and Members of the Armed Forces

Employees in Public Service

40. — Inventions and technical improvement proposals made by employees in enterprises and offices of the Federal Government and state governments, community authorities and other public corporations, corporate bodies and endowed institutions shall be governed by the provisions relating to employees in private employment — with the following provisions:

- (i) instead of making a claim to the service invention, the employer may claim a reasonable share in the proceeds arising from the service invention if this has been agreed beforehand. The amount of the employer's share may be the subject of prior binding agreements. In the absence of agreement on the amount of the share, the amount shall be fixed by the employer. Section 12(3) to (6) shall apply *mutatis mutandis*;
- (ii) the regulation of technical improvement proposals under Section 20(2) may also be made in a service agreement; clauses enabling a provision forming part of a service agreement to be replaced by decision of a higher authority (*Dienststelle*) or other office shall not be enforceable;
- (iii) restrictions on the ways of exploiting a service invention may be imposed on an employee, in the public

interest, under a general order issued by the competent supreme authority (*oberste Dienstbehörde*);

- (iv) the Federal Government and the state governments shall also be entitled to put forward lists of names for the employer assessors (Section 30(4));
- (v) to the extent that public authorities have set up their own arbitration boards to deal with disputes under this Law, Sections 29 to 32 shall not apply.

Civil Servants and Members of the Armed Forces

41. — The provisions relating to employees in public service shall apply *mutatis mutandis* to inventions and technical improvement proposals made by civil servants and members of the armed forces.

Special Provisions for Inventions Made by Teachers and Assistants at Universities

42. — (1) In derogation from Sections 40 and 41, inventions made by professors, lecturers and scientific assistants, in their capacity as such, at universities and higher schools of science shall be free inventions. Sections 18, 19 and 22 shall not be applicable.

(2) Where the employer made available special resources for the research work that led to the invention, the persons mentioned in subsection (1) shall notify him in writing of the exploitation of the invention and shall, upon his request, specify the kind of exploitation and the amount of proceeds achieved. Within three months of such written notification, the employer may demand a reasonable share of the proceeds from the invention. The amount of this share shall not exceed the value of the resources made available.

Chapter IV — Transitional and Final Provisions

Inventions and Technical Improvement Proposals Made prior to Entry into Force of this Law

43. — (1) As from the date of its entry into force, this Law shall apply to patentable employees' inventions made since July 21, 1942 and before the effective date of this Law, save that the provisions of the earlier law shall still apply to the claims to such inventions.

(2) This provision shall also apply to patentable employees' inventions made before July 22, 1942, where the conditions of Section 13(1), second sentence of the Implementing Regulations to the Rules on Inventions of Workers, of March 20, 1943 (*Reichsgesetzblatt*, I, p. 257) are satisfied and where the declaration provided for therein relating to unsatisfactory handling of compensation had not been made by the time this Law entered into force. Such declaration shall be made with the Arbitration Board (Section 29). The declaration may no longer be made if the patent granted for that invention has expired. The second and third sentences of this subsection shall not be applicable where judicial proceedings relating to a demand for reasonable compensation had already been instituted by the effective date of this Law.

(3) In the case of inventions that may only be protected as utility models, made since July 21, 1942 and before the effective date of this Law, only the provisions governing arbi-

⁷ Text changed in accordance with the revision of the Law on Court Costs, of June 27, 1970.

tration proceedings and judicial proceedings (Sections 28 to 39) shall apply. In all other cases, the provisions of the earlier law shall still be applicable.

(4) Section 20(1) shall not apply to technical improvement proposals where exploitation had begun before the effective date of this Law.

Pending Proceedings

44. — For proceedings pending on the effective date of this Law, the courts having jurisdiction under the provisions of the earlier law shall continue to have jurisdiction.

Implementing Provisions

45. — In consultation with the Federal Minister of Labor, the Federal Minister of Justice may issue the necessary regulations for the enlargement of the Arbitration Boards (Section 30(4) and (5)). In particular, he may specify:

- (i) the personal qualifications needed by persons put forward as employer or employee assessors;
- (ii) the mode of remuneration of the assessors appointed from the lists of proposed names.

Provisions Repealed

46. — Upon entry into force of this Law, the following provisions are repealed to the extent that they are still in force:

- (i) the Regulations concerning the Treatment of Inventions by Workers, of July 12, 1942 (*Reichsgesetzblatt*, I, p. 466);
- (ii) the Implementing Regulations to the Rules on Inventions of Workers, of March 20, 1943 (*Reichsgesetzblatt*, I, p. 257).

Special Provisions for Berlin

47. — (1) This Law shall apply, on the basis of Section 13(1) of the Third Transitional Law of January 4, 1952 (*Bundesgesetzblatt*, I, p. 1), to *Land* Berlin. Regulations issued under this Law shall apply, on the basis of Section 14 of the Third Transitional Law⁸, to *Land* Berlin.

(2) The Federal Minister of Justice may set up another arbitration board in the Berlin Branch of the Patent Office⁹. This arbitration board shall have exclusive jurisdiction where the employee's place of work is in *Land* Berlin; it shall also have jurisdiction where the employee's place of work is in the States of Bremen, Hamburg, or Schleswig-Holstein, or in the *Oberlandesgericht*¹⁰ of Braunschweig, or Celle in the State of Lower Saxony, and where — at the time of petition to the Arbitration Board (Section 31) — one party, with the written consent of the other, requests that the arbitration proceedings take place in the Berlin Branch of the Patent Office.

(3) In consultation with the Senator for Justice of *Land* Berlin, the President of the Patent Office may also appoint officials and employees of *Land* Berlin as assessors under Section 30(3). They shall act in an honorary capacity.

⁸ See the First Regulations Implementing the Law on Employees' Inventions, of October 1, 1957.

⁹ Established under the First Regulations Implementing the Law on Employees' Inventions, of October 1, 1957.

¹⁰ District court of appeal.

(4) Only persons domiciled in *Land* Berlin may be appointed as employer or employee assessors (Section 30 (4)).

(5) The President of the Patent Office may delegate to the head of the Berlin Branch of the Patent Office his power to appoint assessors.

48. — (*Repealed*)¹¹

Entry into Force

49. — This Law shall enter into force on October 1, 1957.

¹¹ Repealed by Section 1(1) of the Law Establishing the Legal System of the Federal Republic of Germany in the Saarland, of June 30, 1959.

II

Directives on the Compensation to be Paid for Employees' Inventions Made in Private Employment

(of July 20, 1959) *

CONTENTS		Directive
Introduction		1 and 2
Part I — Invention Value		
A. Patentable Inventions		
I. Inventions Worked in the Enterprise		
1. General		3 to 5
2. Establishing the Invention Value by the License Analogy		6 to 11
3. Establishing the Invention Value on the Basis of the Measurable Benefit to the Enterprise		12
4. Estimation of the Invention Value		13
II. License Contracts; Contracts of Sale and Exchange		14 to 17
III. Defensive Patents		18
IV. Interrelated Industrial Property Rights		19
V. Unexploited Inventions		20
1. Reserve and Improvement Patents		21
2. Unexploitable Inventions		22
3. Inventions whose Exploitability is still Undetermined		23
4. Inventions that are Capable of Industrial Exploitation but are not Worked or Incompletely Worked		24
VI. Special Cases		
1. Limited Claims		25
2. Sales Abroad; Industrial Property Rights Abroad		26
3. Trade Secrets		27
B. Inventions that may be Protected as Utility Models		28
C. Technical Improvement Proposals		29
Part II — Participation Factor		
(a) Posing the Problem		31
(b) Solving the Problem		32
(c) Duties and Position of the Employee in the Enterprise		33 to 36
Table		37
Absence of Compensation		38

* Under a directive of December 1, 1960, these Directives became applicable, mutatis mutandis, to employees in public service, civil servants and members of the armed forces.

Part III — Calculating the Compensation Payment

I. The Equation	39
II. The Mode of Compensation Payment	40 and 41
III. Period to Serve as Basis for Calculating Compensation Payments	42 and 43

Introduction

1. These Directives are intended to assist in establishing the reasonable compensation to which an employee is entitled for service inventions to which an unlimited or a limited claim has been made (see Sections 9(1) and 10(1) of the Law) and for technical improvement proposals (Section 20(1) of the Law). The Directives are not mandatory but contain recommendations for such compensation. If in a given case existing practice in an enterprise is more favorable to the employee, the Directives are not to be applied to his disadvantage.

2. In accordance with Section 9(2) of the Law, the following in particular are significant in assessing compensation: the commercial applicability of the service invention, the duties and position of the employee within the enterprise, and the enterprise's contribution to the invention concerned. As a rule, therefore, in order to ascertain the compensation, the commercial applicability of the invention will first be determined. Part I of these Directives considers the notion of the commercial applicability of an invention (subsequently referred to as the invention value). Since free inventions are not concerned here but inventions either arising from an employee's duties in his enterprise or substantially based upon experience or activities there, a deduction is necessary which will take into account the duties and position of the employee in his enterprise as well as the enterprise's contribution to the invention. This deduction is considered in Part II of these Directives. The employee's share in the invention value, arrived at after the deduction has been made, is expressed as the participation factor, given as a percentage. Part III of these Directives deals with the mathematical calculation of compensation, the mode of compensation payment and the period which is to serve as the basis for calculating compensation payments.

When compensation is being calculated, it is necessary to ensure in each case that the same factor entailing an increase or decrease of the payment is considered only once.

These Directives have been numbered to simplify citation.

Part I — Invention Value

A. Patentable Inventions

1. *Inventions Worked in the Enterprise*

1. General

3. As a rule, the invention value assigned to inventions worked in the enterprise can be determined by three different methods (for exceptions, see Dir. 4):

(a) Establishing the invention value by a license analogy (Dir. 6 et seq.).

Under this method, the invention value is ascertained on the basis of the royalty rate customarily applied to comparable

free inventions. The royalty rate, established either as a percentage or as a specific sum of money per piece or weight unit (see Dir. 39), is correlated with a specific unit of reference (sales volume or production). The invention value is determined by multiplying the unit of reference by the royalty rate.

(b) Establishing the invention value by reference to the measurable benefit to the enterprise (Dir. 12).

The invention value can also be determined by considering the measurable benefit obtained by the enterprise from the use of the invention.

(c) Estimation of the invention value (Dir. 13). The invention value can also be estimated.

4. In addition to the license analogy as provided in Directive 3(a), other analogies may be applicable under certain circumstances. Instead of an analogous royalty rate, an analogous purchase price might be used as a starting point in cases where a lump-sum settlement (see Dir. 40) appears feasible and the purchase price customarily agreed upon with free inventors in comparable cases is known. As far as the suitability of the comparison and the need to adapt the purchase price to the specific service invention are concerned, Directive 9 applies *mutatis mutandis*.

5. The circumstances of each case will determine which of the methods listed under Directives 3 and 4 should be used. If the branch of industry concerned is familiar with royalty rates or purchase prices customarily agreed upon for the acquisition of a similar product or process, the license analogy may be used.

Establishing the invention value according to the measurable benefit to the enterprise applies primarily to inventions that produce savings, as well as inventions directed to improvements, provided the improvement is not of the magnitude that the sales volume achieved with the improved object should be taken as the basis for the evaluation; this method is also applicable to inventions connected with products, machines, or devices used only within the enterprise and to inventions connected with processes used only within the enterprise and for which the sales volume would not provide a sufficient basis for evaluation. The method for establishing the invention value by reference to the measurable benefit to the enterprise has the disadvantage that it is often difficult to determine the benefit and the calculations thereof are not easily reviewed. In many cases it may indeed be possible to calculate the benefit resulting from the achieved price reduction of the starting material, the reduced costs for wages, for electricity or repairs, or from an increased yield. If this method is chosen, it should also be borne in mind that an employer might be required to make considerably more information available concerning the internal procedures of his enterprise — in accordance with his duty to give information concerning his accounts and to open them to inspection, which may be required of him under Section 242 of the German Civil Code — than would be the case if the invention value were determined by the license analogy. An estimation of the invention value may only be applied if it is impossible, or possible only at a disproportionately high cost, to determine the value by using the methods under Directive 3(a), 3(b) or 4 (e. g., for

safety measures and safety devices which are not of general application). It may also be advisable to use one calculation method to check the results obtained from the others.

2. Establishing the Invention Value by the License Analogy

6. In applying this method one must examine the extent to which a comparison can be made. Attention should be directed to whether and how far agreement is present in those features that affect the amount of the royalty rate. In particular, consideration should be given to the following: any improvement or deterioration in relation to the manner of operation, structure, weight, space requirements, accuracy and plant safety; any increase or decrease in production costs, particularly of raw materials and man-hours; any extension or limitation of the invention's application; whether the invention can be incorporated into current production without difficulty or whether it requires changes in construction or the manufacturing process and whether an application can be found immediately or whether extensive tests would still be required; projected sales increases, the possibility of changing from piecework to serial production, additional or more simplified possibilities for advertising, and favorable pricing. It is also necessary to examine the scope of protection afforded by the industrial property right covering the subject of the invention, and whether possession of the industrial property right provides technical and economic advantages to the enterprise. Often a higher royalty rate may be agreed upon in concluding a license contract with a small company than would be the case with a well-established corporation, since a higher sales volume is generally expected from a larger company. In making this comparison, one should also take into account who carries the costs for the industrial property right in the similar cases chosen for comparison.

7. In making a comparison with a royalty rate customarily paid to a free inventor, it is necessary to start from the same unit of reference; relevant units of reference would be sales volume or production. Another point to be considered is whether a determination of the sales volume used in the analogous case was based on the invoice value of the product as it left the factory or on an internal accounting value for intermediate products. In calculating the invention value by reference to sales volume or production, one should generally start with the actual sales volume or the actual production. Sometimes one can also start from a minimum sales volume agreed upon or from a sales increase obtained as a result of the invention.

8. Where an invention affects a device made up of different parts, the invention value can be based upon the value of either the entire device or only the part which influences the value. The basis usually adopted for license contracts in the branch of industry concerned and whether a value is customarily assigned to the patented part by itself or only in combination with the complete device are factors to be taken into account. The answer will frequently depend upon whether the use of the invention has increased the value of the entire device or of only a portion of it.

9. If the comparison shows that the service invention and the free invention used for comparison do not correspond in all respects listed, then the royalty rate must be increased or decreased correspondingly. Nevertheless, there is no justification for decreasing a royalty rate on the ground that a service invention is under consideration; this point is taken into account only when the participation factor is determined.

10. The following general range of percentages based on sales volumes is intended as a reference in determining a royalty rate suitable for a specific branch of industry:

for the electrical industry, a royalty rate of $\frac{1}{2}$ to 5%
 for the machine and tool industry, a royalty rate of $\frac{1}{3}$ to 10%
 for the chemical industry, a royalty rate of 2 to 5%
 for pharmaceutical fields, a royalty rate of 2 to 10%

11. In the case of an extremely large sales volume — that is, one in excess of a million marks —, a reduction in the royalty rate, in accord with general practice, may be applied on the basis of the following inverse scale; however, in each case, account must be taken of whether and how far such reductions in the royalty rate are customarily applied to free inventions by the different branches of industry:

For an aggregate sales volume of:

- 0 to 1 million marks: no reduction in the royalty rate;
- 1 to 2 million marks: 20% reduction in the royalty rate for the sales volume in excess of 1 million marks;
- 2 to 4 million marks: 40% reduction in the royalty rate for the sales volume in excess of 2 million marks;
- 4 to 10 million marks: 60% reduction in the royalty rate for the sales volume in excess of 4 million marks;
- 10 to 20 million marks: 65% reduction in the royalty rate for the sales volume in excess of 10 million marks;
- 20 to 40 million marks: 70% reduction in the royalty rate for the sales volume in excess of 20 million marks.

Example: For a sales volume totaling 5 million marks, the royalty rate should be reduced as follows:

- for the sales volume in excess of 1 million by 1 million: by 20%;
- for the sales volume in excess of 2 million by 2 million: by 40%;
- for the sales volume in excess of 4 million by 1 million: by 60%.

Given a royalty rate of 5%, the invention value for a sales volume of 5 million marks would be:

- for the sales volume of 1 million
= 5% of 1 million: 50,000 marks;
- for the sales volume of a further million
= 4% of 1 million: 40,000 marks;
- for the sales volume of a further 2 million
= 3% of 2 million: 60,000 marks;
- for the sales volume of a further million
= 2% of 1 million: 20,000 marks.

Invention value: 170,000 marks.

3. Establishing the Invention Value on the Basis of the Measurable Benefit to the Enterprise

12. The measurable benefit to the enterprise is understood to mean the difference between disbursements and receipts obtained as a result of the use of the invention (see Dir. 5 for the application of this method). This difference is determined by balancing disbursements and receipts in accordance with the principles of business administration. In this connection, the principles governing pricing in the case of contracts with the public authorities apply (see Ordinance PR No. 30/53 of November 21, 1953 on pricing government contracts and the guidelines for calculations based on actual costs¹). Accordingly, projected interest payments and calculated risks, working capital and possibly management earnings should all be taken into account. The amount thus calculated represents the invention value.

Disbursements made on behalf of the invention prior to its completion are not to be subtracted in determining the invention value. Such disbursements are considered in establishing the participation factor discussed in Part II of these Directives: Scale (c) in Directive 34 is applicable to expenditures for an inventor's wages, and Scale (b) in Directive 32 applies to other expenditures contracted before the invention was completed (technical assistance).

4. Estimation of the Invention Value

13. In a number of cases, the methods illustrated above for establishing the invention value are of little use either because similar cases are not known or because the benefit is not measurable. In these or similar cases the invention value must be estimated (see Dir. 5, last paragraph, for the application of the estimation method). As a reference, one can take that price which an employer would have had to pay, if he had been required to purchase the invention from a free inventor.

II. License Contracts; Contracts of Sale and Exchange

14. If the invention is not worked within the enterprise's own operations but exploited by means of licenses, the invention value equals the net license income. The net amount is calculated by subtracting from the gross license income the costs for development after completion of the invention as well as the disbursements made to put the invention into production. Also to be subtracted in each case are the costs relating to the administration of the patent and the license as well as to the transfer of industrial property rights and expenditures connected with the license grant (e. g., taxes, except for domestic taxes on net profits, and fees relating to negotiation). To the extent that such costs have arisen an appropriate share of the employer's general overhead expenditures must also be taken into account, provided such overhead is not already contained in the expenses just enumerated. In ascertaining the net license income one should take into account whether an employer in a given case might not be taking a risk as licensor, since he might also have future expenditures in defending the industrial property rights, in prosecuting infringements, and in backing guarantees.

To the extent that the receipts do not depend upon the grant of a license but on the transfer of know-how, they are also to be subtracted from the gross license income in calculating the invention value, provided such know-how is not to be considered as a technical improvement proposal within the meaning of Section 20(1) of the Law. In judging whether and how far the receipts are the result of a transfer of know-how, it is not only necessary to consider the terms of the license contract; the actual relationship between the value of a license and the value of the know-how transmitted should also be considered.

A reduction according to the scale provided in Directive 11 is appropriate only to the extent that it has also been granted to the licensee of the employer.

15. Should ascertainment of these disbursements and tasks provide considerable difficulties, it might be suitable to apply procedures analogous to the customary forms of contractual arrangements between a free inventor as the licensor and the employer as the licensee. Because of the disbursements and tasks just mentioned of the holder of an exclusive, unrestricted license, a free inventor will in practice receive about 20 to 50 %, in special instances even more than 50 % and in exceptional cases even more than 75 % of the gross license proceeds which have accrued due to the invention. In particular, consideration should be given to whether the licenses granted are exclusive and unrestricted licenses, non-exclusive, or restricted. Where an exclusive, unrestricted license is granted, the employer does not retain any rights of use for himself; furthermore he generally does not have to continue supplying information on his own additional know-how. Accordingly, an invention value of 50 % or even higher would be applicable. In granting a non-exclusive or a restricted license, the invention value will tend to be closer to the lower limit where the invention is being used by the employer at the same time and is connected with the continuous transmittal of his own know-how.

16. Where the invention is sold the invention value is also determined by reducing the gross proceeds to the net amount. In contrast to the license example, most cases involving the sale of an invention will not require consideration of any further duties and charges accruing to the employer because of the sale. In establishing the net income, all disbursements are to be considered that are connected with development work, after the invention was completed, for making the invention ready for production, the costs of obtaining and assigning industrial property rights and expenditures connected with a sale (e. g. taxes, except domestic taxes on net profits and fees relating to negotiation) in addition to a share of the employer's general overhead to the extent that such expenditures are not already covered by the costs and disbursements mentioned above.

To the extent that the purchase price is not based on the assignment of industrial property rights but on the transfer of know-how, such receipts are also to be subtracted from the gross amount in calculating the invention value, provided such know-how is not to be considered as a technical improvement proposal within the meaning of Section 20(1) of the Law. In judging whether and how far the purchase price is

¹ Bundesanzeiger No. 244 of December 18, 1953, p. 1.

determined by transmittal of the know-how, not only are the terms of the purchase contract decisive, but the actual relationship between the value of the industrial property right and the value of the know-how transmitted should also be considered.

17. Where an invention is exploited by means of a contract of exchange, an attempt might first be made to determine the total value of the contract to the employer and then to estimate the proportion attributable to the service invention claimed in order to establish its share of the total value. If this is not feasible, the invention value must be estimated in accordance with Directive 13.

To the extent that the contract of exchange does not relate to the assignment of industrial property rights or rights of use thereof but concerns the transfer of know-how, this is to be taken into account in establishing the total value of the contract, provided such know-how is not to be considered as a technical improvement proposal within the meaning of Section 20(1) of the Law. In judging whether and how far the transfer of know-how is part of the contract of exchange, not only are the terms of the contract decisive, but the actual relationship between the value of the industrial property right and the value of the know-how transmitted should also be considered.

III. Defensive Patents

18. A special use to which service inventions may be put consists in defensive patents. This term is generally used for patents which were applied for or are being maintained solely to prevent a competitor from utilizing the invention, which might thus impair the enterprise's own current or planned production. These particular patents are not worked, either because an equivalent patent is already being worked within the enterprise or because, without a patent, a product equivalent to the patented invention is already being produced in the enterprise or is about to be produced there. Where an invention already being worked in the enterprise could be bypassed using the second invention, and provided that the economic significance of both inventions is about the same, it may be possible to find points of comparison for determining the invention value of the second invention based on the working of the first invention. The sum of the values assigned to both inventions may nevertheless be greater than the invention value of the first invention. Estimating can help in determining the size of the share of the sales volume, production or profits that would be attributed to the second invention if worked. Even if one were to find that both inventions had more or less the same value, it would be appropriate to assign the second invention a figure less than half the sum of the value of both inventions taken together, since inventions that are being worked are usually considered as providing particular advantages if they have already proved their worth in practice and already appear on the market. A second invention that would enable the first to be bypassed might disclose a limitation in the scope of protection given to the first invention, and this may not always have been taken into account in establishing the invention value for the first invention. This may be a reason for reassessing compensation in accordance with Section 12(6) of the Law.

IV. Interrelated Industrial Property Rights

19. If a particular process or product involves the use of several inventions, and provided they are to be considered as a uniformly exploitable entity, it is necessary first to determine the value of the total entity, optionally including unworked defensive patents. The total invention value determined in this way must then be divided among the individual inventions. Here, account must be taken of the effect each separate invention has on the overall subject matter covered by the interrelated industrial property rights.

V. Unexploited Inventions

20. Unexploited inventions are those which are neither worked within the enterprise, nor used as a defensive patent, nor utilized by third parties on the basis of a license, sale or exchange. The value of such inventions depends on the reasons why they are not exploited (see Dir. 21 to 24).

1. Reserve and Improvement Patents

21. Reserve patents are patents for inventions which, at the time of the patent grant, have not or cannot be exploited but which are expected to be exploited — or exploitable — at a later date. Working may be postponed because, for example, it has been decided to await further technical developments before working appears feasible. Inventions of this type are held "in reserve," awaiting practical application. The invention value of such inventions resides in the justified expectation that they will be exploited. Reserve patents that merely provide improvements to existing patents are called improvement patents (*Ausbaupatente*).

The value of reserve and improvement patents will have to be estimated freely, taking as possible reference points the prospective future use and the amount of subsequent profits expected. Use at a later date will frequently support a request for a new assessment of compensation under Section 12(6) of the Law. Directive 24 determines whether or not compensation is to be paid for potentially exploitable reserve patents that are not put to use.

2. Unexploitable Inventions

22. Inventions that are not worked because they have no present or foreseeable industrial exploitability have no invention value. The fact that an industrial property right has been granted is irrelevant, since the Patent Office examines the invention for novelty, technical advance and inventive step, but does not consider whether the invention can successfully be put into industrial application. Inventions which are not used within the enterprise and which cannot be the subject of a defensive patent or of licensing, sale or exchange, and which in addition have no value as a reserve patent should be released to the inventor.

3. Inventions whose Exploitability is still Undetermined

23. It will not always be possible to know immediately whether an invention is — or may become — capable of industrial exploitation. In a number of cases such determination may require a certain length of time for examination and tests. Compensation payments are generally not considered

appropriate where and for the time during which the employer examines and tests the invention and its industrial application is thus still undetermined. It is indeed possible that an application will be found. Such possibility is deemed to have been fairly dealt with in that the employer examines and tests the invention at his own expense, thereby providing the concrete possibility for the inventor to receive compensation should the test results be positive.

The length of time which should fairly be granted to the employer for seeking an industrial application for an invention will differ from case to case; nevertheless, a period of three to five years after the patent grant should be exceeded only in exceptional circumstances. Should an invention not have been released to the inventor after that time, there is a clear presumption that a value should in fact be assigned to it, even if only as a reserve or improvement patent.

4. Inventions that are Capable of Industrial Exploitation but are Not Worked or Incompletely Worked

24. If an invention is not worked at all or only in part although it is capable of industrial exploitation, the determination of the invention value must take into account its unexploited possibilities within the scope of a reasonable assessment of existing economic facts.

VI. Special Cases

1. Limited Claims

25. In evaluating a non-exclusive right to use a service invention, the same rules apply, *mutatis mutandis*, as those given to evaluate a service invention to which an unlimited claim has been made. However, in establishing the invention value only the actual exploitation by the employer is relevant; unused possibilities for industrial exploitation are not taken into account (see Dir. 24).

If the invention value is to be determined on the basis of the measurable benefit to the enterprise, it makes no difference whether such determination pertains to an invention for which a limited or an unlimited claim was filed.

In establishing the invention value by the license analogy, the rates to be used as a reference should, if possible, be those that are customarily applied for non-exclusive licenses with free inventors. If such rates for non-exclusive licenses are unknown, it is permissible to use as a reference an invention for which an exclusive license was granted; here, account must be taken of the general rule that royalty rates for non-exclusive licenses are generally — though not always — somewhat lower than royalty rates paid for exclusive licenses. Where an employee has granted licenses, the royalty rates agreed to in those license contracts may, if the cases are comparable, be used as a standard for the invention value. The fact that the employee has not obtained an industrial property right does not affect compensation unfavorably; however, compensation should not be paid or no longer be paid if the invention has become so well known that competitors are justified in using it because it is not protected by an industrial property right.

2. Sales Abroad; Industrial Property Rights Abroad

26. Where goods manufactured domestically are supplied abroad and the calculation of the invention value for the domestic position is based on the measurable benefit to the enterprise, the same method must be used in relation to the foreign situation. Similarly, where the license analogy is used to calculate the invention value, the sales volume or the production considered should take into account the domestic goods supplied abroad. If a corresponding industrial property right exists abroad and there has been an additional exploitation abroad (e. g. manufacture abroad, foreign licenses), the invention value should be proportionately increased.

If there are possibilities for industrial exploitation or additional exploitation abroad that are not utilized, the domestic principles governing unexploited possibilities apply (see Dir. 24). If neither the employer nor the employee has obtained industrial property rights abroad, such territory is open to a competitor with the result that, in general, compensation cannot be requested either for use of the invention in a country where it is not protected by an industrial property right or for the sale of products manufactured in such open territory.

3. Trade Secrets (Section 17²)

27. Compensation is to be paid for inventions constituting trade secrets just as it is for inventions protected by industrial property rights. Here, account must be taken of the economic disadvantages (see Section 17(4)³ of the Law) that result to the employee due to the fact that industrial property protection has not been accorded to the service invention. Such disadvantage might, for example, be the fact that the inventor is not recognized as such or that the service invention can be worked only to a restricted extent. A further disadvantage might be the fact that a service invention has been prematurely disclosed and is being exploited by other competitors because no industrial property protection was provided.

B. Inventions that may be Protected as Utility Models

28. In establishing the invention value for service inventions that may be protected as utility models, the same methods are applicable in principle as those relevant to patentable service inventions. If the invention value is being established on the basis of the measurable benefit to the enterprise, the same principles apply as in the case of patentable service inventions. On the other hand, if the license analogy is used, licenses customary in comparable cases of utility model inventions should, wherever possible, be used as a reference. If such royalty rates for utility model inventions by free inventors are not known, it is also permissible under the license analogy to use royalty rates customary for comparable patentable inventions; however, the following should be noted in applying that method: in practice royalties customarily paid to free inventors for utility models will frequently be lower than those for patentable inventions; this is due in part

² See footnote 2 relating to Section 17 of the Law on Employees' Inventions on p. 229 above.

³ Now 17(3); see footnote 2 on p. 229 above.

to the generally more restricted scope, and shorter term, of legal protection of utility models. For service inventions, the fact that the protectability of a utility model has not been established, can only be used to the employee's disadvantage if in the particular case there are distinct reservations as to its protectability justifying a reduction in the royalty rate used as a comparison. If in such cases, the utility model is not challenged or is successfully defended, it would generally be necessary to reassess compensation in accordance with Section 12(6) of the Law.

If a patentable invention is registered as a utility model under Section 13(1), 2nd sentence of the Law, the invention value is to be determined in the same way as in the case of a patentable invention, taking into account the shorter term of legal protection for the utility model.

C. Technical Improvement Proposals (Section 20(1))

29. Section 20(1) of the Law gives the employee a right to reasonable compensation from the employer for technical improvement proposals which afford the employer an advantaged position similar to that obtained from an industrial property right, provided the proposal is exploited. Such an advantaged position is provided by technical improvement proposals which cannot be imitated by third parties (e. g. use of a secret process; use of products that cannot be analyzed). The technical improvement proposal must ensure such advantaged position by itself; if it is applied to an apparatus that has already achieved such competitive advantage, compensation need be paid only to the extent that such proposal gives a new competitive advantage independent of the existing advantaged position. In establishing the value of the technical improvement proposal as provided in Section 20(1) of the Law, the same methods apply as are customary in establishing the invention value for inventions capable of industrial property protection. Only the actual exploitation by the employer is however relevant in this connection; the industrial exploitability of an invention that is not worked (Dir. 24) is not to be considered. Compensation payments may not or may no longer be required as soon as the competitive advantage disappears because the technical innovation has become so widely known that competitors may also rightfully use it.

Part II — Participation Factor

30. The invention value established in accordance with Part I must be reduced by a given amount to allow for the fact that it is not a free invention. The employee's share in the invention value after such deduction is made, is expressed as the participation factor, given as a percentage.

The participation factor depends upon:

- (a) the posing of the problem;
- (b) the solution of the problem;
- (c) the duties and position of the employee in the enterprise.

The table in Directive 37 lists points for the individual groups in the Tables (a), (b), and (c) to assist in calculating the participation factor. If, in a specific case, a value in between those given in the separate groups appears appropriate an intermediate value may be used (e. g. 3.5).

(a) Posing the Problem

31. The employee's share in making a service invention increases in proportion to the greater initiative on his part in posing the problem and in his contribution in recognizing the shortcomings and needs of an operation. These possibilities may be taken into account on the basis of the following six groupings:

The occasion for an employee to make an invention arose:

- (1) because the employer posed a problem for him indicating directly the approach to be taken in solving it (1 point);
- (2) because the employer posed a problem for him without indicating directly the approach to be taken in solving it (2 points);
- (3) without having the employer pose a problem for him, but as a result of a knowledge — obtained through his employment — of the shortcomings and needs, where the inventor did not recognize these shortcomings and needs himself (3 points);
- (4) without having the employer pose a problem for him, but as a result of a knowledge — obtained through his employment — of the shortcomings or needs, where the inventor recognized these shortcomings and needs himself (4 points);
- (5) because he himself posed a problem falling within his range of duties (5 points);
- (6) because he himself posed a problem falling outside his range of duties (6 points).

For group 1 it does not matter whether the employer indicated a specific method of solution at the time the problem was posed or at a later date, unless the inventor had already taken steps in the direction of the specified solution approach. For inventions falling into groups 3 or 4, where the employer specified a specific approach to a solution to the inventor at a later date, it may be appropriate to assign fewer points to the invention, unless the inventor had already taken steps in the direction of the specified solution approach. Should the problem for groups 3 or 4 fall outside the range of duties of the inventor, it might be appropriate to assign a higher point rating to the invention.

Another fact to be taken into account is that posing the problem of itself may already provide a direct indication of how it should be solved, if that problem is narrowly confined. On the other hand, generalized instructions (e. g. to watch for inventions) should not be considered specific outlines of a problem within the meaning of this rating scale.

(b) Solving the Problem

32. The following aspects should be considered in arriving at the points assigned to solving a problem:

- (1) the solution was found with the aid of the inventor's professional approach to the problem;
- (2) the solution found was based on activity or knowledge customary in the enterprise;
- (3) the employer aided the inventor by providing technical assistance.

If all of these characteristics apply to a given invention, 1 point is assigned to the solution of the inventive problem. If none of these features are present, 6 points are assigned.

If these three characteristics apply only in part for a given invention, the points assigned to the solution lie between 1 and 6. In determining the number of points assigned to the solution of a problem, the individual circumstances should also be considered with respect to the significance of the three characteristics listed above (e. g. the extent to which technical assistance was provided).

For the purposes of this Directive, a professional approach to the problem means one which results from the knowledge and experience familiar to the employee and required of him in fulfillment of his assigned duties.

For the purposes of this Directive, the activities or knowledge customary in the enterprise means the know-how within a given operation, working methods, incentives, gained experiences, instructions, etc. which led the inventor to his solution or substantially simplified the process of achieving it.

For the purposes of this Directive, technical assistance means the sources of power, raw materials and equipment for an operation that substantially contributed toward achieving a service invention because of their availability. The availability of personnel is to be given the same weight as the availability of technical assistance. Not to be considered as technical assistance within the meaning of this Directive is the labor supplied by the inventor as well as general expenditures for research, laboratory equipment, and apparatus, that would have been incurred in any event.

(c) Duties and Position of the Employee in the Enterprise

33. An employee's share of the invention value diminishes proportionally as his position provides him with more insight into production and development activities in his enterprise and as the expectation increases that he will contribute toward technical achievements of his employer because of the position and salary paid to him at the time the invention report was made. The position at the place of employment is understood not as the nominal but as the true position held by an employee, based on the duties assigned to him and the insight that he may have into the life of the enterprise.

34. One might distinguish between the following categories of employees, whereby the assigned number of points increases in proportion to a diminished expectation of performance level:

Group 8: to this group belong employees for the most part without training for the activities to be performed in the enterprise (e. g. untrained workmen, temporary (unskilled) help, trainees, apprentices) (8 points);

Group 7: this group includes employees with a practical technical training (e. g., skilled workers, laboratory technicians, assembly men, draftsmen) even if they have already been assigned minor supervisory duties (e. g., as foremen, substituting foremen, shift bosses, group leaders). Such employees are generally expected to apply a certain amount of technical understanding in completing their

assignments. Nevertheless, it should be kept in mind that in general a solution to technical problems of construction or of methods cannot be expected from the occupations within this group (7 points);

Group 6: members of this group carry out supervision at a lower level (e. g., master craftsmen, shop masters or foremen) or have received a somewhat better-grounded technically oriented education (e. g., as laboratory chemists or technical assistants). These employees are generally expected to suggest methods for rationalizing their work, as well as simple technical innovations (6 points);

Group 5: to this group belong employees who have received a higher scientific education at a university, a polytechnic institute, a technical institute of higher learning, or an engineering school or similar institution and whose work is related to production. Such employees can be expected to possess a keen technical interest in addition to the ability to solve certain problems of construction or methods (5 points);

Group 4: included here are those supervising production (section managers, i. e. engineers and chemists who direct the activities of other engineers and chemists) and those engineers and chemists employed in development work (4 points);

Group 3: to this group belong, in the field of production, the supervisors of a complete production unit (e. g. the technical head of a department or plant manager); for development work, the section managers of construction offices and development laboratories; in research work, engineers and chemists (3 points);

Group 2: to this group belong the heads or managers of development sections or departments, as well as section managers in research (2 points);

Group 1: placed first are the heads of all research departments within a given company and the technical directors of larger corporations (1 point).

The preceding arrangement of categories can only serve as a point of reference. Classification into a particular group must always consider actual circumstances, taking into account the details provided in Directives 33, 35, and 36. In smaller companies, for example, the heads of research departments will frequently not belong to group 1 but — according to specific circumstances — to groups 2, 3, or 4. Furthermore, classification of activities into production, development, or research is not always justified, since in some companies, for instance, employees working in development are more closely associated with possibilities for inventions than are employees actively engaged in research.

35. If there are inconsistencies between the amount of the salary and the range of duties, it might be justified to place the inventor in a higher or lower group because pay and expected productivity are interrelated. This should be considered especially in relation to younger or older employees within the same group. As a rule, an employee's salary increases with his age, supported for the most part by the view that increased experience based on the length of employment

yields greater productivity. Accordingly, an older employee with a higher salary in a given group might more appropriately be classified in the next group below, whereas a younger employee with less income should be moved to the next group above. Another fact to be considered is that executive employees are not generally expected to concern themselves with technical details. Executive employees, especially in large companies, are frequently farther away from technical development than are development engineers or plant engineers. Accordingly, such instances also call for a correction of the group designation. A further reference point for classifying an employee will generally be his previous training or education. This aspect has no influence, however, if the employee's education is not being used by the enterprise. On the other hand, one needs to take into account that employees who have acquired considerable technical knowledge without previous formal education and are employed and paid for such experience, should be assigned to the appropriate lower group (one with a lower number of points, e. g. from group 6 to group 5).

36. No technical achievements are customarily expected from employees engaged in commercial or business practices who have had no previous technical education or training. A different rule might be applied to so-called technical business representatives and business administration employees on a supervisory level (head of a business administration or commercial department; administrative and business managers). Classification of these persons will have to be decided separately for each case.

Table

37. The participation factor can be calculated from the following table:

$a+b+c =$	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	(20)
A =	2	4	7	10	13	15	18	21	25	32	39	47	55	63	72	81	90	(100)

In this table:

- a = points assigned in relation to the posing of the problem;
 b = points assigned in relation to the solution of the problem;
 c = points assigned in relation to the duties and position in the enterprise;
 A = the participation factor (the employee's share in the invention value being given as a percentage).

The sum obtained from adding (a), (b), and (c) need not be a whole number. If intermediate values (e. g. 3.5) were taken as points of reference, the participation factor will be somewhere in between the figures mentioned. The values of 20 and 100 have been placed in parentheses since, in this case at least, a free invention is involved.

Absence of Compensation

38. Where the participation factor is very low and the invention value is also small, it will be permissible to reduce the compensation assessed in accordance with the preceding Directives to a nominal amount in recognition or to dispense with it entirely.

Part III — Calculating the Compensation Payment

I. The Equation

39. Compensation calculated on the basis of the invention value and the participation factor can be expressed in terms of the following equation:

$$V = E \times A$$

where:

- V = the compensation payable;
 E = the invention value;
 A = the participation factor given as a percentage.

The invention value established by the license analogy is given as:

$$E = B \times L$$

where:

- E = the invention value;
 B = the unit of reference;
 L = the royalty rate given as a percentage.

In the second equation, the unit of reference may be a sum of money or a number of pieces. If the unit of reference is a sum of money, the royalty rate is given as a percentage (e. g. 3 % of 100,000 marks). On the other hand, if a number of pieces or a unit of weight is taken as the unit of reference, the royalty rate amounts to a sum of money per piece or per weight unit (e. g. 0.10 marks per piece or weight unit of the product sold).

Taken together, the above equation yields the following for establishing compensation payments by the license analogy method:

$$V = B \times L \times A$$

For the above, B always denotes the corresponding unit of reference (sales volume, production). B may cover the entire term of the industrial property right (or the total amount of time otherwise relevant in accordance with Dir. 42), or B may cover a specific cycle in time (e. g. one year); the equation thus yields compensation for the entire term (V) or for a specific period of time (hereinafter referred to as V_j for a yearly assessment). If the compensation amount was established by combining the license analogy method with the sales volume (U), calculation would be made in accordance with this equation:

$$V = U \times L \times A$$

or for a yearly assessment:

$$V_j = U_j \times L \times A$$

Example: Given annual sales of 400,000 marks, a royalty rate of 3 % and a participation factor of ($a + b + c = 8 =$) 15 %, compensation for a single year would be 1,800 marks:

$$V_j = 400,000 \times \frac{3 \times 15}{100 \times 100}$$

II. The Mode of Compensation Payment

40. Compensation payments can be in the form of continued participation in the benefit. If the compensation amount depends upon sales volume, production, or the measurable benefit to the enterprise, it would be appropriate to

calculate the amount retroactively; in such circumstances yearly settlement is advisable, whereby appropriate installments should be paid to the extent that this appears suitable. If a service invention is being exploited through licenses, the compensation payments schedule will generally have to be adjusted to that of the license payments received.

Sometimes it may be appropriate to pay a fixed amount (lump-sum settlement) in one or several installments.

This would apply particularly to the following circumstances:

- (a) minor inventions for which annual accounting would be too costly;
- (b) a service invention used as a reserve or improvement patent;
- (c) the position held by an inventor is such that he could influence the working of his service invention or influence the development of additional, related inventions; in this case it may be advisable to pay a fixed compensation amount in one or more installments, to avoid a conflict of interest.

In practice, a combination of both methods of payment is seen where a licensee makes a single fixed payment and the licensor thereafter continues to participate in the receipts from use of the invention. This type of arrangement might also be an appropriate way to settle compensation payments.

41. In practice, only very few patents are kept in force for the total patent term of 18 years. In assessing a lump-sum settlement for patentable inventions, it has often proved justified to assume the average patent to run for one third of the total patent term, thus for six years. If a substantial change has occurred in the circumstances essential to ascertaining or fixing the compensation, the employer and employee can require the other to consent to a different compensation arrangement under Section 12(6) of the Law.

III. Period to Serve as Basis for Calculating Compensation Payments

42. The period relevant for calculating continuing compensation payments generally ends, for cases where unlimited claims to the invention are made, when the industrial property rights cease to exist. The same applies where limited claims to the invention are made and an industrial property right is granted. Directive 25 should be consulted for the length of a compensation period where limited claims to an invention are made. In exceptional cases it may be justified, with a view to achieving fairness of compensation, to extend payment beyond the term of the industrial property right. This would apply for example to inventions which are actually worked only during the final years of the term of protection, and where particular circumstances — gained by the patentee during the term — have caused the competitive advantage of protection to subsist. Such particular circumstances might exist, for example, if the invention pertains to a protected process for which considerable internal know-how is required to make it operate, and such know-how is not readily available to competitors upon expiration of industrial property protection.

43. If the validity of an industrial property right may be challenged, the employer is nevertheless obliged to make compensation payments until a decision of invalidity has been rendered, because up to that point the employer has actually been in a position to utilize the invention and has achieved a more favorable competitive position than would have been possible if he had not made a claim to the invention. For the purposes of the right to compensation, apparent or presumed invalidity are equated with actual invalidity where it turns out that the industrial property right has lost its former economic effect so that an employer cannot be expected to continue compensation payments. This is especially the case if competitors can copy the subject of the industrial property right without fear of an infringement suit.

ITALY

Decrees concerning the Temporary Protection of Industrial Property Rights at Exhibitions

(of May and June 1972) *

Sole Section

Industrial inventions, utility models, designs and trademarks relating to objects appearing at the following exhibitions:

Salone mercato internazionale dell'abbigliamento SAMIA e MODASELEZIONE (Turin, September 8 to 11, 1972);

X^a Mostra mercato internazionale degli articoli casalinghi, cristallerie, ceramiche, argenterie, articoli da regalo, ferramenta e utensileria (Milan, September 9 to 12, 1972);

X^a Mostra internazionale del marmo e delle macchine per l'industria marmifera (S. Ambrogio di Valpolicella (Varese), September 9 to 17, 1972);

Modamaglia — Salone della maglieria italiana (Bologna, September 15 to 18, 1972);

V^o SUDPEL — Salone italiano della pelletteria e del guanto (Naples, September 16 to 19, 1972);

IX^a SMAU — Salone internazionale macchine, mobili, attrezzature ufficio (Milan, September 23 to 28, 1972);

XII^o Salone del mobile italiano (Milan, September 23 to 30, 1972);

XXVII^a Mostra internazionale delle industrie per le conserve alimentari (conserve, imballaggi, impianti ed attrezzature industriali) (Parma, September 23 to October 1, 1972);

XXII^a Salone internazionale della tecnica and IX^o Salone internazionale della montagna (Turin, September 23 to October 2, 1972);

XV^a Mostra internazionale del tessile — macchine, apparecchiature e accessori (Busto Arsizio (Varese), October 1 to 10, 1972);

* Official communications from the Italian Administration.

X^a *Mostra internazionale dei trasporti interni e del magazzino — manutenzione "TRAMAG'72"* (Padua, October 4 to 8, 1972);

VIII^a *SAIE — Salone internazionale dell'industrializzazione edilizia* (Bologna, October 7 to 15, 1972);

VIII^a *Biennale italiana della macchina utensile BI-MU* (Milan, October 8 to 15, 1972);

Salone internazionale delle materie plastiche PLAST 72 (Milan, October 8 to 15, 1972);

VII^a *Esposizione internazionale delle attrezzature per il commercio e il turismo — EXPO CT '72* (Milan, October 15 to 22, 1972);

II^a *MIPAN — Salone nazionale delle macchine, impianti e prodotti per la panificazione e la pasticceria* (Milan, October 15 to 22, 1972);

III^a *NAUTICSUD — Salone nazionale della nautica per il mezzogiorno e l'oltremare* (Naples, October 28 to November 5, 1972);

LIV^a *Salone internazionale dell'automobile* (Turin, November 1 to 12, 1972);

IV^a *Mostra delle attrezzature per odontotecnica — EXPO TECNO DENTAL* and II^a *Mostra nazionale delle attrezzature per odontoiatria — EXPO MEDI DENTAL* (Milan, November 4 to 8, 1972)

shall enjoy the temporary protection established by the decrees mentioned in the preamble ¹.

¹ Royal Decrees No. 1127 of June 29, 1939, No. 1411 of August 25, 1940, No. 929 of June 21, 1942 and Law No. 514 of July 1, 1959. (See *La Propriété industrielle* 1939, p. 124; 1940, pp. 84 and 196; 1942, p. 168; 1960, p. 23.)

GENERAL STUDIES

The Threat to our Environment and the Protection of Intellectual Property

By Rudolf E. BLUM *

Who does not remember the heroic sagas of Norse mythology? We devoured them avidly when we were children and lived them as though we were ourselves at the heart of events, feeling in our very bones the trials and tribulations of these superhuman creatures. Later, as adults, we approached these stories more critically and, I might almost say, with some arrogance. The scientific and moral educations we had received (and only partly digested) prevented us from understanding and properly appreciating the deep symbolic meaning of these sagas from the early Middle Ages. However, we still recall the heroic character of Thor, the Nordic god who used to bless marriage and give fertility to all living things. According to the saga, this divinely radiant figure of Norse mythology found death in a terrifying, all-corrupting fight (Ragnarök) against hostile powers. He challenged the Midgard serpent, the guardian of Midgard, the region between heaven and the underworld, and killed the poisonous serpent

(the incarnation of the pernicious and dangerous powers of earth and sea). Alas, the god of fertility eventually died from breathing its poisonous breath. In this apocalyptic battle, the earth is destroyed by fire and sinks below the waves of the sea.

Anybody who is conscious of the danger run by our civilization, and indeed all humanity, anybody of our generation who has spiritually witnessed the destruction of Hiroshima and Nagasaki, will interpret these old sagas and their unmistakably symbolic contents as a warning of the shape of things to come, surfacing from the subconscious instinct of the race. Water, air and earth are threatened today by technology or, more accurately, by the foolishness of man in the application of technology, to such an extent that one must seriously fear for the welfare of the coming generations. One is involuntarily reminded in this connection of the poisonous breath of the Midgard serpent.

The age-old preoccupation with the end of the world is still with us but may be expressed in a more modern fashion in the following extract:

“It is a fact that, for the last century and a half, the following is expressed ever more often and ever more peremptorily: We live at a turning point of world history in which we witness first the decline of political freedom, then of culture, then of man as a human being, and finally of human life itself.” ¹

¹ Karl Jasper, *Die Atombombe und die Zukunft des Menschen*, Piper & Co., Munich, 1958, p. 398.

* Patent Attorney.

Note: This Study was originally published (in German) in *Aspekte des deutschen und internationalen gewerblichen Rechtsschutzes und Urheberrechts*, Beiträge aus Anlass des 70. Geburtstags von Richard Moser von Filseck, May 1972 issue of *Gewerblicher Rechtsschutz und Urheberrecht* (GRUR).

What has happened, and what is the source of such reflections and analogies?

The Problems to be Faced

Let us not speak of Hiroshima and Nagasaki, but picture instead the case of Minamata, a small town of 50,000 inhabitants on the western coast of Kyushu Island. In an article by Shigeto Tsuru² we read the following details:

"It [Minamata] is dominated by a single factory owned by the New Japan Nitrogen Company which manufactures, among other chemical products, aceto-aldehyde by the catalytic hydration of acetylene sulphate of mercury.

"Early in 1953, reports came from one part of the city that some cats, dogs and crows had died in convulsions. Soon, a number of persons developed symptoms similar to those of the stricken animals, and on examination were found to have suffered damage to the central nervous system.

"The death rate was as high as 40% and the disease was concentrated among fishermen living in a certain neighbourhood."

Tsuru describes moreover the struggle of the scientists to discover the causes of this phenomenon. The suspicion soon arose that the disease was connected with methylmercury. Traces of methylmercury were found in fish and shellfish. Later on, the suspicion that the methylmercury was originating from the waste waters of the factory proved to be true. The author writes:

"Minamata disease victims numbered 116 by the end of 1969, of whom 45 had died. More than ten of the victims had apparently been affected during their fetal development."

The same author also describes the case of the so-called itai-itai aching disease, a disease which was found in the region of the Jintsu river, and was also due to poisoned waste waters. The symptoms of the disease, says Tsuru, are grinding pains all over the body, but especially around the pubic bone, and particular vulnerability to bone fractures. The disease was found to have a high incidence among pregnant women. According to a doctor who has treated 260 cases of itai-itai since 1946, the death rate is as high as 50 percent. In 1960, it was found that the waste water came from a zinc refining plant on the Jintsu river.

There are many similar cases in Japan but I should like to mention other examples. Take for instance perhaps the most terrifying one, the notorious 1952 London smog, where a concentration of sulphur dioxide which would have been harmless in normal circumstances, combined with a high percentage of dust in the air, caused the death of about 4,000 people³. Such phenomena with a substantial increase in the death rate do not only happen in England. There were, and are, very similar cases in the Ruhr area⁴.

Let us mention also the case of the sulphur umbrella which threatens the Nordic forests. We read in the *Tages-Anzeiger* (Zurich)⁵:

"Norwegian and Swedish scientists have proved that the whole of Northern Europe continually lies under an umbrella of sulphur, fed mainly by the British and the Central European industry. Since national measures are absolutely incapable of checking this air pollution, international agreements are indispensable. The sulphur dioxide is transformed in the atmosphere into sulphur trioxide, and falls to the ground with the precipitations. In two or three decades, the constant sulphuric rain will halve the growth of forests, basic element of the wood industry, and lead to the so-called biological death in the lakes."

Even Africa is not spared. The *Tages-Anzeiger*⁶ reported the following facts:

"The blast furnaces of the Pretoria steel works release up to 22 tons of residues in the atmosphere every 24 hours. In the industrial area of Sasolburg, oil is obtained from coal. The housewives of the region positively dread their washing day because, when the wind direction is unfavorable, the dirty exhaust gases are blown back to the ground and leave a gray deposit on the washing. Not far from Sasolburg, in the industrial city of Vereeniging, motorists normally have to put on their lights between 4 and 5 p.m. because of the layer of haze and smog that hangs over the whole area. The pilot of a major airline reports that on a clear day the Johannesburg-Pretoria-Vereeniging area can be identified with the naked eye from a distance of 100 miles. Above this area, the skies resemble black thunderclouds."

The ill-informed reader may think that these are isolated cases and that, though catastrophic, their consequences hardly justify the conjuring up of visions of the end of the world. Let us bear in mind, however, that in addition to the frightful pollution of air, water and earth (in the midst of affluence and overproduction) two-thirds of the present world's population are suffering from malnutrition⁷.

To understand this properly, one must first of all bear in mind that during the past century, wind and water erosion has destroyed nearly 5,000 million acres (15 percent) of the land surface of the globe, representing 27 percent of the land in active agricultural use⁸.

But that is not all. On the remaining productive land surface, plants are treated against pests with poisonous substances, the most widely known of which is no doubt DDT. Beside DDT (and mercury, lead and cadmium) various other chlorinated organic compounds are being used, which, with time, penetrate further and further into the food chains. These substances have been found far away from the origin of the poisons, in the tissues of birds (for instance penguins of the Antarctic) and other animals, and even in human mother's milk. The fertile earth threatens to drown in poison and dirt. For example, the Rhine spills about 60 million tons of dissolved solids into the North Sea every year. In Canada and the United States of America, the rivers carry annually for each man, woman and child 7,000 lbs of pollution to the seas⁹. Moreover, the oceans are polluted by oils. It is estimated that as much as ten million tons of oil are dumped into the ocean each year¹⁰. One reckons that a child born today in the United States of America will consume at least 20 times as much as a child born in India and contribute 50 times more than he to

² *Unesco Courier*, July 1971, p. 10.

³ See F. Korte, "Bedeutung der Isotopenmethoden für die Bestimmung der Umweltqualität," *Schutz unseres Lebensraumes*, Verlag Huher, Frauenfeld, 1971, p. 244.

⁴ See H.-W. Schlipkötter in *Schutz unseres Lebensraumes*, op. cit., pp. 280/281.

⁵ Of October 12, 1971, p. 46.

⁶ Of September 21, 1971, p. 45.

⁷ *Unesco Courier*, July 1971, p. 5.

⁸ See Boris Voltowski (Chairman of the State Committee for the Protection of Nature, set up by the Council of Ministers of the Ukrainian SSR), *Unesco Courier*, July 1971, p. 27.

⁹ See publication of the United Nations Development Programme (UNDP 1971).

¹⁰ See Vladimir Baum in a United Nations paper, Ref. 71-16666, p. 51.

the pollution of the environment. Summarizing the emergency of the environmental situation, we can say (with Konrad Buchwald)¹¹ that:

1. Pollution and poisoning of the most important natural vital elements such as water, air and earth, is increasing continually and reaching — though for the present still limited to certain times and places — critical limiting values for human life.

2. Growth processes and the consequent pollution and sollicitation of the environment are in many well-known cases exponential, i. e. increasing at an ever faster rate.

3. Most of these processes cannot be localized; they often affect the whole system of the globe and can therefore only be solved internationally.

4. We do not know how far many of these processes are irreversible, i. e. not liable to be cancelled, or whether the damage can be put right under economically acceptable conditions in medium-term planning periods.

5. We are all under the influence of artificial technical stimuli such as noise, artificial light, high speeds, vibrations and artificial radiations, to which the human organism has not been submitted in the millions of years of evolution, and to which — according to present knowledge — he cannot adapt at all or at any rate not quickly enough.

6. We are increasingly deprived of vital, natural, hiotropic stimuli like sun, light, wind, frost, heat and movement impulses.

7. The standardization and monotony of our natural and our man-made environment, its lack of diversity, of form, of color, of ecological and biological multiplicity, is increasing. The non-human life around us is getting poorer."

Konrad Buchwald drew the conclusion that:

"The danger of the increasing uniformity and monotony of our natural and our man-made environment must be taken particularly seriously because it constitutes at least as big a threat to human life in the psychic, spiritual and physical spheres as direct pollution of the environment."

We recall in this connection Jasper's thought about the decline of man as a human being, followed by human life itself.

The dangers described above are serious, very serious indeed, and they are immediate. This is why a message addressed to the "three and a half billion neighbors on planet earth" was handed to U Thant on May 2, 1971. In this message, 2,200 scientists from all over the world warned of the "unprecedented common danger facing mankind." The former Secretary-General of the United Nations replied to the scientists who handed the message to him:

"This global concern in the face of a grave common danger which carries the seeds of extinction for the human species may well prove to be the elusive force which can bind men together. The battle for human survival can only be won by all nations joining together in a concerted drive to preserve life on this planet."¹²

The United Nations has taken the initiative. The General Assembly convened a United Nations Conference on the Human Environment, held in Stockholm from June 5 to 16, 1972. In a resolution, the General Assembly declared that the main aim of the Conference should be to encourage and provide guidelines for action by nations and international organizations to protect and improve the human environment¹³. In

a publication issued by the United Nations¹⁴, details were given concerning the tasks of the Conference. The question was on the one hand to propose and prepare new legal instruments, such as international conventions, etc., and on the other to seek for ways of promoting scientific research to develop environment-saving alternatives such as plant derivatives and biological methods to replace persistent toxic chemicals for controlling pests¹⁵.

The Role of Industrial Property

In this connection, and on the basis of the facts described above, the question is, what can international protection of industrial property contribute to this project? What projects could and should industrial property promote?

Let us begin with the question of the research projects for the protection of the human environment by developing new varieties of plants. Much could be done in this field for the developing countries and their undernourished population.

What is the specialist's opinion on this subject? He starts from the fact that our food has only been based, so far, on about a dozen plants (monocotyledons). The main ones are rice, maize, wheat, sugar cane, coconuts and bananas. Although there are a great number of species of dicotyledons, this class of plant, oddly enough, contributes to human alimentation only to a relatively small extent¹⁶.

It is now common knowledge that the protein supply is critically low in a great number of tropical countries of Africa and Asia. It has been estimated that the worldwide "protein gap" in the next 10 to 15 years will amount to about 2.5 million tons¹⁷. And yet, there are "unused breeding reserves." The lupins of America might be mentioned in the first place. The South American lupins are very rich in protein. Their seeds contain up to 45% protein; dried, their green parts supply 30% of raw protein. However, the plants are poisonous because of their high content (up to 2%) of alkaloids. One has tried by various washing processes to remove this poisonous bitter matter, but success has so far proved elusive. By applying radiation genetics, it has been possible, however, to breed mutants poor in alkaloids. Mutation genetics has thus contributed to fulfilling a thousand-year old dream of the farming population of the Andes.

Like the lupins, many species of vetchlings (*Lathyrus*) are also represented in the new and the old world. Their seeds apparently contain high-value protein. The natives know that, and eat them in times of famine in spite of their toxicity. In this connection, Brücher¹⁶ writes:

"Most impressive — and at the same time most shattering — because of the catastrophic consequences it has in times of famine — is however the cultivation of *Lathyrus sativus* in India. This plant is called dhal there ... Although doctors and the more educated of the country population know that the continuous consumption of lathyrus is the cause of a dreadful nervous disease, 2.5 million acres are planted with dhal every year.

¹⁴ *New Challenge for the United Nations*, Ref. OPI/433/-02726. February 1971. 25 M.

¹⁵ *Ibid.*, pp. 8/9.

¹⁶ See Heinz Brücher (Head of the Protection of Plants Project of the Governments of Germany (Federal Republic) and Trinidad and Tobago), in *Züchtungsforschung und Entwicklungshilfe in den Tropen*, Umschau, 1970, No. 26, p. 847.

¹⁷ See "UNDP 1971" mentioned above.

¹¹ In *Schutz unseres Lebensraumes*, op. cit., p. 137.

¹² *Unesco Courier*, July 1971, p. 4.

¹³ See United Nations Press Release, GA/134 of September 10, 1971, p. 94.

These plants contain aminopropionitril, which provokes severe toxic symptoms in the human organism. According to the "law of homologous lines," it is probable that in the leguminous family, nonpoisonous mutants exist. Would it not be appropriate for modern breeding research to devote itself to the solution of the lathyrus problem, thus giving humanity a new, nonpoisonous plant rich in protein?"

Brücher also mention the problem of cassava or manioc, a tropical fruit with an edible root. It is not rich in protein but is used as a food by hundreds of millions of inhabitants of the tropics. Most types contain only 3% protein. *Manihot esculenta* leaves contain, as is well known, 30% to 36% protein. The problem of the manihot culture is however that this plant is vulnerable to a mosaic virus. There are wild species of manihot which are immune to this virus, but the wild species have wood-like roots which are not suitable for the extraction of manihot flour (tapioca). It would be desirable to breed a type of manihot which on the one hand contains as much protein as the *Manihot esculenta* and on the other would share the wild variety's resistance to mosaic virus. Here too, a gratifying task awaits scientific research.

If developing countries of the tropics can be helped, then surely this should be primarily by the exploitation of local resources. There are magnificent tropical fruits which, if they had a good aroma, yielded a good crop, and kept well, would easily become an important source of income to the producer country. There is, for instance, a South American nightshade, the so-called Orinoco apple (*Solanum topiro*). It produces a large amount of fruit, has a splendid taste and keeps well. However, it exists only in the wild state. The Indians do eat it, but they do not cultivate it. Here too, breeding work remains to be done which could be invaluable.

Yet another fruit worth mentioning is the Quito orange (*Solanum quitoense*), which grows in cool mountain regions of the tropics (3,000 to 6,000 feet in altitude). The natives in Colombia and Ecuador cultivate Quito oranges in their gardens and eat the fruit. The plantation crops however appear to fall victim to various diseases. Brücher writes:

"It will be necessary to obtain a better resistance to virus and nematodes through hybridization with the wild form. In optimal cultivation conditions, approximately 4,500 liters of juice can be obtained per hectare. The fruit has an attractive appearance; it is rich in fruit acids, pectine and vitamins and is easy to harvest. The disadvantage of the hitherto existing primitive form lies in the high number (more than 1,000 per fruit) of seeds, which absolutely must be reduced, and the proportion of fleshy matter increased."

The papaya fruit is another immediate problem. The well-known and delicious sorts which are known the world over are extremely susceptible to diseases caused by the so-called "distortion ringspot virus." Many freshly planted papaya plants perish of this disease. There are however some types of papaya which grow wild and which are resistant to the distortion ringspot virus. It has not been possible, so far, to graft this resistance into the cultivated type. If this problem cannot be solved quickly, thousands of native families which depend completely or partly on papaya cultivation will lose an important source of income, in many cases the sole one.

Let us look at the problem of the palm trees; to begin with, the coconut palm. Coconuts grow on 30 to 60 foot palm trunks. Their picking is difficult and many natives of South America, in Venezuela for instance, refuse to do it. The State

then has to import copra (dried coconut kernels) although the coasts of the country are covered with the most beautiful palm beaches. Attempts have been made to breed coconut palms with a short trunk, to make picking much easier and to resist storm better. Success has been achieved in hybridization of new sorts of short coconut palms which are supplanting the high trunk palms more and more. These are the so-called dwarf coconut palms. A breeding success has been achieved which will prove to be very important for the developing countries.

Brücher reports upon similar breeding successes with oil palms. The oil palm, he says, is superior to all other fat-producing plants. However, cultivation of the oil palm is a recent venture. It has been possible, through selection, to breed oil palms with a husk representing only 10% of the fruit (in the wild variety 50%). It has furthermore been possible to find a mutant yielding colorless oil, which promises particularly big advantages for the technical use of palm oil. In recent years, attempts have been made to breed variants of this plant with short trunks.

Since it has been possible to improve to such an extent the shape and the yields of the coconut palm and the oil palm, it should also be possible to attain similar breeding results with other tropical palm trees. The palm products have a vital importance for countless natives since they can be used for a great number of purposes (building of huts, clothes, woven mats, fishing nets, weapons, palm vegetables, oil, palm wine and palm fruit). Appropriate research projects ought to be undertaken without delay. Take for instance the *Guilielma utilis* which grows in the regions of the Caribbean. Its fruit is as big as a hen's egg, but contains twice as much protein as bananas and vitamins A and C as well. Unfortunately, the trunk of this plant is thorny and relatively tall. It should be possible to breed a thornless trunk. It would no doubt also be advantageous to influence the size of the fruit. Since the stone of the fruit is not used, stoneless mutants should be looked for.

The importance of the breeding of new varieties of plants is, of course, not limited to the tropics. In colder regions, the breeding of specially cold-resistant plants can contribute a great deal to improving the food supply of mankind. Much has already been done in this direction. For instance, thanks to the creation of early-ripening varieties of maize, which can stand the cold spells of spring, this very high-yielding crop is now very widely spread, north of the Alps. Worth mentioning are also the new varieties from the Rockefeller and Ford foundations, as for instance the new resistant Mexican strains of wheat and the highly productive varieties of the indica rice¹⁸.

However, the main problem is not only the breeding of new varieties of plants but also the breeding of new varieties of animals. Much has already been done here too. From 1870 to 1970, for instance, it has been possible to raise the yearly milk yield of a cow in Switzerland from 4,400 to 8,500 lbs and to reduce a pig's fattening time from birth to 220 lbs from one year to 6½ months. If a hen laid an average of 80 eggs in

¹⁸ See Rudolf Koblet, "Die Produktion pflanzlicher Nahrungsmittel," *Schutz unseres Lebensraumes*, op. cit., p. 200.

1870, we may expect it to lay 270 eggs this year. For a hen fattened for eating, 5 lbs of food was required in 1870 to obtain a weight increase of 1 lb, and this was reduced to 2 lbs in 1970¹⁹. We may assume that the biological limits of the increase in productivity of domestic animals have not yet been reached.

If the world population increases as expected (it will double in 37 years), further similar breeding results will be absolutely necessary to prevent catastrophic famines in the future. All possible means should be used to promote and support such research. For developing countries especially, an acceleration in the growth of food animals by medical and technical means, and the consequent shortening of the fattening times, especially of domestic animals, will be of major importance. This is why it is desirable that research scientists of all countries devote their full attention to such problems. The developing countries especially should encourage their own breeders with all the means at their disposal.

What should be done? First of all, the scientists working in the field of plant and animal breeding should be encouraged and the fruits of their research made more attractive. Their successes should be properly rewarded. Secondly, the results of their research on breeding should be adequately protected. This protection may be achieved for plant breeding thanks to the creation of modern laws for the protection of new varieties of plants. It is distressing that the Convention of Paris for the Protection of New Varieties of Plants has only been ratified by six States and that moreover the developing countries, which should be especially interested in an adequate law, show practically no interest for this branch of industrial property. This mistake is not made only by the developing countries. It rather lies in the fact that the preparatory international conference for the setting up of such a law, which met in 1957, united the European States alone and that the Convention itself was largely tailored to fit the needs of those States. This is shown especially by the Annex to the Convention, which lists the varieties of plants of which at least five must be protected in each Contracting State (Article 4(3)). However, this list contains varieties which are to all intents and purposes devoid of interest for the tropical countries. A revision of this list is an inevitable requirement if developing countries are to adhere to the Convention.

There has as yet been no similar convention in respect of animal breeding. The patent laws of the various nations offer only an insufficient substitute for such a convention. In this connection, it is interesting to note that in the Second Preliminary Draft of a Convention Establishing a European System for the Grant of Patents, Article 10(b) provides that European patents shall not be granted in respect of plant or animal varieties or essentially biological processes for the production of plants or animals. Owing to the importance of such inventions, I feel that this provision is shocking and there is in my opinion no justification for it²⁰.

¹⁹ See Alfred Schürch, "Die Produktion tierischer Nahrungsmittel," *Schutz unseres Lebensraumes*, op. cit., p. 205.

²⁰ Exemplary in this connection is the new Hungarian patent law, under which (Section 6(2)) new plant varieties and animal breeds are treated in the same way, i.e. both can be protected under the patent law (see T. Palagyi, "Das neue ungarische Patentgesetz," *Der Neurer*,

In addition to legal protection, something more should be done in order to encourage the plant breeders and, in an analogous law, the scientists in the field of zoology to engage in corresponding research activities. It is not enough to create rights of protection enabling the breeder's efforts to be adequately recompensed by the sale of the varieties that he has bred and by possible royalties. Especially in developing countries, a substantial contribution to the war against hunger will only be made if the breeding results can be made available without delay to the whole population of these countries. In this connection, one cannot expect too much as far as royalties are concerned since the interested parties are generally poor nomads and peasants. A new concept or a new method must be established in order that a fair reward may be assured to the breeder for his contribution to the general social and economic betterment. I would suggest that a union be created of the nations interested in new animal and plant varieties. This union of nations would have to elaborate provisions for the protection of new animal and plant varieties for developing countries²¹. Under these provisions, a minimum recompense, laid down by contract, would be assured to the breeder on the one hand, and the right would be given, on the other, to all inhabitants of these countries to use freely the result of these new breedings. A similar system to that of the inventor's certificate in the Soviet Union would have to be created. However, in contrast to that system, the breeder would not be compensated according to the savings which his new variety has made; but rather a fixed sum, proportional to the importance of the new creation, would have to be paid to him. A system of classes could be imagined, determined according to the number of interested nations and the importance of the sales. A remuneration (possibly in the shape of a pension) would have to be paid. Its size would depend on the class in which the respective new creation would be placed. An international committee of experts would have to examine the invention and assign it to its proper remuneration class. The sums which would have to be found every year would be divided between the interested nations according to a special scale taking account of the national income and their interest. Industrialized countries would have to bear heavier burdens to start with. This should however be less costly in the long run than the countless unproductive subsidies which are being paid today to relieve the many emergencies.

Such a system (or a similar system) would be interesting not only for inventions in the field of new plant varieties and animal breeds, but also for inventions which help in the fight against the dangers to our environment. Indeed, research in industrialized nations is motivated today by two completely different reasons. We have on the one hand theoretical research and on the other applied research. Theoretical research is generally performed in universities. It cannot be channeled into specific paths because it is determined by

1971, p. 168). Romania also grants patents for new plant varieties and animal breeds — since 1968 (see J. Bican, "Der Rechtsschutz von Neuzüchtungen," *IAPIP — MIE Conference: "Correlation between the Protection of Industrial Property and Industrial Development,"* OMKDK Technoinform, Budapest, 1970).

²¹ J. Bican (op. cit., at p. 242) comes to a similar conclusion. He proposes a new treaty covering the whole field of new breedings.

scientific curiosity and the passionate drive to expand man's knowledge. On the other hand, applied research is close to industry and is economically motivated. In other words, research scientists in the field of applied science normally obtain their reward and their motivation with the help of patent protection. Besides these two types of research there is what Karl Schmid called the third group, in an article on the responsibility of the university²². It is due to socio-political inspiration. The health and the welfare of the individual in society as a whole are the focal point of this inspiration. Schmid writes on this subject²³:

"The university scientists, the theoretical scientists, are not very interested in it. The problems here are only partly interesting, primordial or original from a scientific point of view. There are certainly no Nobel prize laurels to be expected either. Industry too is only relatively interested in this research. There is indeed generally very little to invent and develop which would find a buyer in the marketplace. Since the specific motivations and energies which push theoretical research forward on the one hand and applied research on the other, are missing here, the only solution is for the State, acting for the common good, not only to give the impetus but also to initiate projects either directly or indirectly."

In addition to the creation of State-owned research institutes encouragement by means of adequate remuneration, guaranteed by the State, could also be envisaged here. This research would absorb immense funds, which individual developing countries especially would hardly be able to raise; but since a great number of countries would be interested in the results, an internationally organized union of all States laying claim to a sense of responsibility should be established without delay. Only in this way will it be possible to guarantee a broad enough basis and the finance which is a *conditio sine qua non* to ensure a chance of success in such direly needed research work.

Conclusion

From this analysis, it follows that work should take the following lines:

- (a) the breeding of new varieties of plants;
- (b) biological methods for replacing the toxic persistent chemicals in pesticides (biological pest destruction);
- (c) the breeding of new types of animals;
- (d) the stimulation of inventions which preserve the environment or repair the damage to it but which, although of worldwide interest, are exploited either insufficiently or not at all, for lack of special motivation and direct economic interest.

It is true that this last group of inventions may generally be protected by the existing patent laws. This is no reason, however, for excluding them from the proposed new regulations, since it is common knowledge that such technological needs as cleaning up the air and water, protection against noise pollution and the elimination of refuse, do not attract the attention of the inventor to the degree required by what in some cases is a catastrophic situation. This is no doubt to a large extent due to the fact that, so long as the use of appropriate machinery and methods is not prescribed by law, the

market for such expensive inventions will not be large enough to guarantee an adequate remuneration²⁴.

The present proposal may well shock conservative experts in the field of industrial property, since we already have two systems for the protection of inventions. There is first the classic patent, which grants an exclusive right, where the owner obtains his remuneration by licensing his invention, or by manufacturing and exploiting the patented objects himself. This concept is based on the assumption that there is a market for the invention and that, by fulfilling the needs of the market, an adequate remuneration can be obtained. The second system, which is applied in its purest form in the Soviet Union, is characterized by the inventor's certificate and, as a rule, gives only "moral rights" to the inventor (mention as inventor) and allows a claim for a limited remuneration, the size of which is fixed according to the savings that industry can make when using the invention. Every State enterprise automatically has the right of using the invention protected in this manner.

The third system, which I would like to propose here, must depart for important reasons from these two existing types of protection. Such a system would be applicable so long as there are either no legal obligations to use the invention protected by this system, (such as an obligation to filter the exhaust gases of factories) or, so long as the beneficiary of the invention is economically not in a position to pay an adequate remuneration for life-saving new breedings (for instance, societies in developing countries using the new breedings to cover their own daily needs). This would however be a temporary measure and apply only so long as there is no economically attractive market able to provide adequate remuneration for the inventor, and, consequently, insufficient financial incentive for inventive activity in these fields. For this reason, a different type of incentive must be offered to the inventor. Of course, it could not always be calculated on the basis of possible savings, which frequently do not occur (for example in the case of equipment for the purification of exhaust gases, from which increases rather than savings in prices would result). Moreover, the people who would reap the benefit of the inventions and new breedings would not be able to pay royalties since they belong to the economically weakest groups of mankind. The funds for inventors' remuneration must therefore be raised, perhaps as advance contributions, from the responsible and economically strong nations which are also directly or indirectly interested. Whether, and how far, these nations can fall back upon various groups of consumers is immaterial and therefore need not be clarified or discussed here.

This path may well seem revolutionary. In conclusion, I would like however to quote in this connection Robert Theobald²⁵:

"Human beings find it easier to continue to act in ways which they already know rather than to seek new patterns more appropriate to new conditions. We naturally tend to take over approaches which have already been tried out elsewhere rather than to create imaginatively novel patterns which respond to real conditions and goals . . .

²⁴ See Hans Würigler in *Schutz unseres Lebensraumes*, op. cit., p. 99.

²⁵ In *The Challenge of a Decade*, May 1969, United Nations publication, p. 19.

²² In *Schutz unseres Lebensraumes*, op. cit., p. 500.

²³ *Ibid.*, p. 501.

"Attitudes are already changing in international organizations and governments throughout the world. The pace of change must, however, be greatly accelerated and the scope of our analysis enlarged. We need to create new forms of planning which will permit us to evaluate the directions in which we should move.

"As we do this, we may be forced to call into question many of our present conclusions . . ."

Two nations, at least, have already recognized that a special status should be granted to the inventions concerned with the protection of the environment — those inventions which deal especially with the purification of the air, water and human environment. They are the United States of America²⁶ and Japan, which also grants such inventions a privileged and accelerated treatment²⁷. However, there is no doubt in my mind that this special status for such inventions falls far short of the necessary incentive to encourage more such inventions and that a great deal more must be done on the international level.

²⁶ See Official Gazette Notice of January 29, 1970 (871 O.G. 673).

²⁷ See *Patent & Engineering*, Tokyo, Vol. 1, No. 1, May 20, 1971, p. 1.

Employees' Inventions — Law and Practice in the Federal Republic of Germany

By Hans SCHADE *

I. Employees' Inventions

Most patent laws share the fate of many other laws that regulate legal relationships in the economy and in industry: economic and industrial progress has marched on and passed them by. Existing structures have frequently received a new content, the significance of many rules has changed and emphases have moved. Fortunately, statutes have provisions that enable the law to adapt to new circumstances without undergoing formal change or that allow other rules of law to grow up beside them, which may take the form of new legislation, common law or judicial decisions.

One of the aspects of change within economies is the fact that individual work in industrial firms is increasingly giving way to cooperative efforts. The contribution of a craftsman in the manufacture of industrial products has been replaced by mechanization and more rational operations. At the same time, the financial resources required have now become too heavy for one person to bear — I refer only to the extreme examples of research in the areas of space and air travel, computers or the construction of heavy machinery. All this explains why most inventions are no longer the work of inventors developing them privately, but instead originate in the factories where the inventors are employed, and are frequently the result of teamwork. It is estimated that 80 to 90 percent of all inventions are made by employed inventors.

* Dr. of Philosophy; Dr. of Law. Judge Schade was, until recently, a *Senatspräsident* of the German Patent Court, Munich. From 1957 to 1971, he was Chairman of the Arbitration Board set up within the German Patent Office by the Law on Employees' Inventions.

Under the classic patent laws in the western world, the right to a patent belongs to the inventor. A glance at the patent registers will show, however, that enterprises and not inventors are primarily registered as patentees. The patent right has thus been transferred by the inventor to a natural person or legal entity under a contract or by other legal act. There are also national legal systems which give the employer the patent right from the outset. The socialist countries have taken still different approaches in elaborating the inventor's rights and the scope of the rights in the invention itself.

In the western world, the question whether an employer is entitled to an industrial property right based on an employee's invention — and why, to what extent and with what consequences — has received a large variety of answers. These are influenced by two very different fields of law which are both relevant to employees' inventions. Under the basic principles of labor law, the fruit of the labor belongs to the employer: under patent law, it takes on the character of an exclusive right and belongs to the employed inventor. The answer given in a particular system will reflect the importance placed on the one or the other field of law. However, a practical answer must be given to the legal questions involved and the solutions adopted everywhere emphasize that it is the employer who is entitled to the industrial property right.

An excellent survey of the laws on employees' inventions, and their application in a large number of important industrial countries, was provided at a conference held in February 1971 at the Gottlieb Duttweiler Institute in Rüschlikon, near Zurich, attended by persons from many countries. The conference took place on the welcome private initiative of Dr. Fredrik Neumeyer, Stockholm, who has for long been convinced of the importance of this subject. The international and comparative law aspects which provided the foundation for the conference, and from which a trend developed that was most impressive to all participants, cannot be discussed here¹. Nor will the possibilities for international regulation of the subject be dealt with.

The purpose of this Study is to provide a short analysis of the principles contained in the German Law on Employees' Inventions of July 25, 1957 to illustrate the experience gained in the Law's application, the effects of the Law and its significance for the economy, and to outline some problems that have developed since the Law's entry into force on October 1, 1957. It was, however, felt necessary first to describe the economic and international framework to the law on employees' inventions in the Federal Republic of Germany.

II. The Law relating to Employee's Inventions in the Federal Republic of Germany

The Law of July 25, 1957² has 49 sections. For its practical application, it is complemented by the Directives on the Compensation to be Paid for Employees' Inventions Made in Private Employment, of July 20, 1959³, containing 43 points.

¹ On this subject, see F. Neumeyer, "The Employed Inventor as Subject of Legislation — an Ideological Survey," *Industrial Property*, 1971, p. 243.

² See page 226 above.

³ See page 233 above.

The Directives are not mandatory; they are merely recommendations but they have considerable practical significance.

The wealth of existing material can only be described in outline, particularly since the purpose of this Study is not to go into the Law itself, but to illustrate the experience gained in its application. However, certain references to the Law appear desirable, primarily to enable a reader not familiar with its provisions to understand how it works in practice.

1. The first requirement is to distinguish between the notion of a service invention, which is related in some way to the employer's business, and the notion of a free invention, which does not have this connection. This distinction is also present in the laws of many other countries.

Section 4 of the Law defines two types of service inventions, which give rise to the same questions of law in contrast to the position in many other legal systems:

(a) Service inventions are first those which have arisen from an employee's obligations in his place of private employment or in the service of a public authority. These are termed *Auftragserfindung* (commissioned inventions) or *Obliegenheitserfindung* (obligatory inventions). In this context, the notion of a commission is interpreted broadly. The easiest way, in my opinion, to characterize this type of invention is to say that it must fall within the range of the employee's obligations.

(b) Service inventions may also be those which are essentially based upon the experience or activities within the enterprise or authority employing the inventor. This is a development on what is called the state of the art within an enterprise, comprising all experience and knowledge available there. In this context older patents of the enterprise are of course relevant, as well as the experience gained from handling the requests and complaints of customers, etc.

2. The right to a service invention originates with the employee. The employer is, however, entitled to have it transferred to him. There need be no contract for this, nor is the employee's agreement required. Section 6 provides that the employer may claim a service invention. The claim is made in a written statement addressed to the employee. In legal terms, this procedure is a unilateral declaration of intent taking effect when received, and at that time the right to the invention passes to the employer. It is also permissible to transfer the invention by contract.

In addition to the unlimited claim to an invention as just described, the Law also provides for a limited claim. In this case, not all rights to a service invention are transferred; the employer is merely given a non-exclusive right to use the service invention. This is comparable to a non-exclusive license. The more restricted scope of the right acquired is coupled with less stringent obligations on the employer. It is estimated that unlimited claims to an invention are made in about 99 percent and limited claims in only about one percent of all cases where rights are transferred.

A declaration of intent to claim an invention must be received by the employee at the latest four months after a proper report of the invention was received by the employer. Otherwise, the invention is considered as having become free

(Section 8), which permits the employee to dispose of it as he wishes.

3. Section 5 provides that the employer must be informed of a service invention made by an employee, and that such report must be made in writing and without delay. Such statement must clearly indicate that an invention is being reported. Many factories provide forms for this purpose.

4. Making a claim to an invention places two legal obligations on the employer:

(a) he must pay reasonable compensation;

(b) he must file a domestic application for a patent or a utility model based on that invention. He may also apply for foreign protection; if he does not intend to do so, he must make it possible for the employee to file applications abroad.

In discussing practical applications of the Law, I shall return to the significance of these provisions, particularly in connection with the payment of compensation for an invention and the amount of compensation.

5. Of decisive importance in the application of the Law is its mandatory nature, set forth in Section 22 (the *Unabdingbarkeit* principle): prior to the report of a given service invention, it is not possible to contract out of the provisions of the Law to the detriment of the employee.

This means, for example, that an employment contract may not provide that all inventions pass to the employer in the absence of separate reports and declarations of claims thereto, or that compensation for inventions is included in the generous salary, or that the employer may refrain from filing an industrial property application without compensating the inventor. Such agreements are invalid and legally unenforceable.

This provision, which is in keeping with customary labor law in Germany, shows that it is the intent of the statute to protect the socially weaker class. The regulation is interpreted very strictly and sometimes provides difficulties. Its inflexibility is alleviated somewhat by the fact that agreements are permissible after the invention has been reported in specific terms; nevertheless, such agreements require approval by the inventor. In addition, preventive measures against a misuse of the freedom to contract are contained in Section 23, which provides that manifestly inequitable agreements are invalid. The rights and duties arising under the Law are not affected by termination of employment (Section 26).

6. Arbitration Boards have been established within the German Patent Office in Munich and in Berlin to settle disputes between employer and employee arising from the Law. The case must be referred to the Arbitration Board as long as the inventor is employed. Appeal may also be made to the Board after employment has terminated, which is frequently done. The Arbitration Board cannot render a binding decision, but only a settlement proposal. If the proposal is not objected to within one month of its receipt by the parties, it is deemed to have been accepted. Proceedings before the Arbitration Board are entirely free of costs; there are no fees, nor are expenses to be reimbursed.

The Arbitration Board has a legally qualified chairman, appointed by the Federal Minister of Justice always for a calendar year. The chairman is assisted by two assessors with a technical background, selected from the Patent Office examiners and appointed for each case by the President of the Patent Office. Thus, two technical specialists take part in each case. Upon request, two assessors who are not civil servants may be added to the Arbitration Board, selected from lists provided by employer and trade union organizations.

7. It should be mentioned that the provisions of the Law are also applicable, with a few minor changes, to employees in public service, particularly those employed by the Federal Government and state governments, by community authorities and by other public authorities, as well as to civil servants and members of the armed forces.

III. Experience with the Law on Employees' Inventions

After this brief survey which outlines only the most important provisions of a law governing so many details, I shall now discuss some aspects of its practical application and its effects. In the last analysis, the value of a law is not determined by the theory it propounds — which may be of high academic interest, serve as the basis for discussion or appear as exemplary or unacceptable; what is decisive is how far it prevails in the economy, whether it proves to be a useful tool, whether it results in frictions to a greater or lesser degree and whether one of the "social partners" reacts with enthusiasm or criticism.

The fact that this Law is not confined to the statute books is due to Section 22 (*Unabdingbarkeit* principle) mentioned earlier, which makes the provisions mandatory: they may not be evaded by means of an individual employment contract or by a collective wage agreement to the detriment of an employee. The Law *must* be observed. Of course, the employee still needs to know his rights and must also be willing to take advantage of them. This is still not always the case, as will be seen toward the end of this Study.

It is above all the large enterprises which adhere to the Law, frequently using forms covering certain aspects of its administration, for example, forms for reporting an invention. The Law's effectiveness can be seen in that the Arbitration Board in Munich received 887 cases up to December 31, 1971, the period when the author was its chairman. The experience gained in this capacity from 1957, and also the exchange of ideas with many inventors, representatives of employers and members of industrial patent departments, has enabled a number of points to emerge which have proved significant and sometimes subject to considerable debate. These points relate to the rights and duties of the inventor himself — which come within the German concept of substantive law — and the way in which the rules should be followed in order to realize, transfer or terminate the inventor's rights — which comes within the German concept of procedural law. This applies particularly to probably the most significant provision in the Law, governing the compensation of inventors, the preconditions for compensation and the principles on which it is calculated.

I should like to select the following points for more detailed consideration: the notion of a service invention, particularly where there are several contributing inventors; difficulties resulting from the non-compliance with the rules governing the reporting and claiming of an invention; ascertaining compensation on the basis of licenses that might be concluded or of the measurable benefit to the enterprise; special considerations applicable to improvements of existing products or processes and to cases of exceptionally large sales; industrial property rights abroad.

1. *Defining a Service Invention*

One of the few points on which there is some international agreement concerns the distinction between a service invention and a free invention made by an employee. It is generally clear that a service invention can only be one which is associated in a specific way, to be defined in more detail, with the employee's enterprise. Under German law, a service invention must either result from the employee's tasks or be essentially based upon experience or activities in the enterprise.

No difficulties are caused by inventions evolving from research and development activities of engineers, chemists, etc. Generally, it will be quite evident that these persons were carrying out their duties at the time the invention was made, or that the experience or activities in the enterprise had a decisive influence on the making of the invention. It is rather the borderline cases which occasionally present difficulties. In one case, an opinion was requested concerning whether a salesman entrusted with market research whose study of competitive products led him to contribute an important aspect of an invention as a co-inventor, was to be treated as the author of a service invention or as an independent inventor. A similar situation arose in the case of a newly employed business manager who contributed a significant idea towards redesigning a machine of utmost importance to that business. The Arbitration Board has also frequently had to consider the question whether the contribution made by a lawyer in public service or in private employment comes under the category of a service invention or of a free invention. In these particular cases, the Arbitration Board suggested that the inventions were service inventions.

These are borderline cases that may occur anywhere. The decision as to whether his contribution is or is not to be considered a service invention is not left to the employee, since he is also obliged to report to his employer inventions which he feels to be free inventions. The employer is given three months in which to express his disagreement (Section 18).

Uncertainty and vagueness are more frequently encountered in determining who is to be considered a co-inventor, particularly where the contributions of individual members of a work-team taken separately have no inventiveness and are thus insufficient to support an industrial property application, but where the finished product of such teamwork is clearly patentable, resulting in the grant of domestic and foreign patents. In such instances the mixed constitution of the Arbitration Board has demonstrated its value. The assessors with specialized technical knowledge, for example, patent examiners for cases covering cogwheel finishing machines, for

transformers or for pharmaceuticals, can evaluate the importance of individual contributions of a team from a technical, a patent and frequently also from an economic point of view (this is of relevance also in assessing the amount of compensation, as will be seen below) with more authority than the chairman or judge generally participating in the proceedings. It has often been helpful to discuss the subject matter in detail during a hearing and frequently the parties have then arrived at a settlement.

It should be noted that current German jurisprudence does not accept an invention without an inventor, a so-called "factory invention."

2. Reporting and Claiming an Invention

The Law requires an invention to be claimed in writing within a period of four months, otherwise it becomes free. The employee may then dispose of it as he wishes — he may even sell it to a competing firm, for example. It is therefore extremely important to file a claim to the invention in time. To do this, the employer must of course know that the invention exists. This is why each service invention must be reported.

This system operates well in large enterprises. Firms of a medium or smaller size frequently do not act in accordance with the rules, particularly if an invention is made by one of their executives who has power to file a patent application on behalf of the enterprise, perhaps under his own signature. Throughout the Arbitration Board's existence, it has had to consider such instances in which either both parties or only the employer disregarded the Law. The Board has repeatedly emphasized that the formal requirements of the Law be given a strict interpretation.

On the other hand, the Arbitration Board has tried not to be unrealistic or impractical, for instance where the inventor himself files an application with the Patent Office in the name of his enterprise but without a formal report and receipt of a claim or where he deals with agents and the Patent Office on behalf of the firm, the Board has assumed an express or implied assignment of rights to exist with retroactive effect; this is expressly permitted, for the period following the realization of the invention, under the *Unabdingbarkeit* provision. In these cases, the employer has been informed of the invention, since it was he who submitted it to the Patent Office; thus such action is equated with a formal report. It remains to be seen whether the courts will always uphold this conciliatory opinion of the Arbitration Board. In extreme cases settlement was achieved by having the employer pay to the employee a considerably larger compensation sum for assigning the invention, than would have been necessary if he had adhered to the formal requirements.

3. Compensating the Inventor

(a) As already indicated, the pivot of the Law is the obligation to compensate the inventor. Its purpose is to provide the employed inventor with a fair return based on the advantage to the employer of being able to obtain an industrial property right. The legislature has assumed that an invention is not the normal result of work. Phrased differently, an employec can-

not commit himself to devise inventions, because this would be contrary to the essence of an invention.

A right to reasonable compensation is provided in Section 9 of the Law. In its assessment the following, in particular, will be taken into account: the commercial applicability of the service invention, the duties and position of the employee in the enterprise, and the enterprise's contribution to the invention.

The Directives issued in 1959, mentioned earlier, suggest methods for determining the amount of compensation. The principle of the system recommended in the Directives can be described as follows:

Initially it is necessary to determine what an independent inventor would have received for the sale or use of a similar free (non-service) invention. In practice this requires a determination of the terms of contracts of this nature, particularly license agreements, concluded between different companies. The Directives have called this the "invention value."

In most instances compensation is assessed according to a method employing a license analogy: one determines the type of license contract that might be concluded in similar circumstances. Another method considers the measurable benefit to the enterprise. This approach is closest to the intent of the Law, which is to ensure that the inventor participates in the profits derived from his invention. However, considerable difficulties are encountered in its practical application. It is not easy to measure the benefit to the enterprise, which includes a consideration of the general overhead of a firm (administration costs, general expenditures and taxes) as well as its profits. It is often only possible to estimate that amount in such cases as those inventions connected with safety measures within a factory, employees' health, and quality control of products.

Of course, an employed inventor will not receive the same amount of compensation as a "free" inventor: he is employed by the enterprise, is working with materials provided by the enterprise and does not participate in the costs and risks during development. He therefore receives only a portion of the value assigned to an invention.

This "participation factor" takes into account the amount of initiative the inventor has had to provide in posing the problem and in arriving at the suggested inventive solution. For example, a rating is given to indicate whether he posed the problem himself or whether it was posed for him. Also rated are the position and duties the inventor has at his place of employment. The higher his position in the organization, the lower the figure given to the rating — an unskilled workman is given eight points, a research engineer four points, a managing director one point.

These examples show that a rating system according to points has been devised. Some may be sceptical whether a point system can result in reasonable compensation. Experience plays an important part. Nevertheless, this type of calculation is one which engineers and chemists follow with ease, and it lends itself to a more uniform application of compensation rates.

It should be mentioned that the value arrived at for the participation factor in most cases lies between 15 percent and

20 percent of the amount which would be paid to a free inventor.

Compensation may be paid in a single lump sum or it may be paid annually varying with the sales volume, as is the case with non-exclusive license agreements. Professional jargon sometimes refers to "licenses" given to the inventor. The Directives also contain many instructions and suggestions to facilitate assessing reasonable compensation for specific situations.

The system most frequently applied in assessing compensation, by enterprises and particularly also by the Arbitration Board, is the license analogy system. It is not always easy, and experience is necessary, to arrive at a royalty rate that would be customary for comparable license agreements, for example, about three to five percent of the value of a novel machine, two to three percent of the value of an automatic flash mechanism for a camera, five percent of the sales for a particular drug, or only 0.3 percent of the sales of a radio. However, most of the time it is much more difficult to determine the measurable benefit, since general overhead, taxes and profits need, in particular, to be considered. Moreover, an employer is not always willing to have his employees know all the details in assessing the costs of a product, particularly where the employee concerned has already left the firm.

On the other hand, there are instances where it is hardly possible to base the analogy on production or sales, because the invention results in savings within the firm, either reducing the manufacturing costs of the process or product or having other advantages — for example, an invention in a large chemical company which considerably improved the utilization of exothermic heat developed during a chemical process, thus contributing a significant economic factor. In another instance, an invention greatly reduced the waste encountered in the manufacture of transistors. For cases where concrete savings can be determined with a given amount of certainty, the Arbitration Board has developed a calculating system which may utilize estimates. This system presupposes that no enterprise would pay to a free inventor an amount equal to the savings it hopes to make if his invention is utilized. The enterprise has to take a certain risk as to whether the invention will prove itself; it also has to take investments and overhead costs into account. Furthermore, the enterprise is interested in making a profit in acquiring that invention. At the suggestion of industry, the Arbitration Board has thus taken, as a guide for invention values, figures ranging from one-third to one-eighth of the actual savings realized. A subtraction is then made of the participation factor, which takes into account that the inventor is given a salary, that he uses the services of the enterprise and that the enterprise carries the costs and the risks. In the chemical case referred to above, which concerned the yield of nitrogen, the rate arrived at amounted to 20 percent of the profit estimated over ten years. This amount was reduced by the participation factor. For an estimated profit of over one million marks, the compensation paid to the inventor amounted to about 78,000 marks.

(b) If we return to the calculation method employing the license analogy, two difficulties arise which also occur in

assessing the amount of royalties for license contracts between different firms and which become particularly significant when the analogy is carried over in calculating compensation for employed inventors.

First, there is the difficulty concerning the "unit of reference" (point 8 of the 1959 Directives); then, there is the reduction of the royalty rate for large volumes of sales (point 11 of the Directives). I should like to explain these two concepts.

Many inventions do not result in a completely new product, for example a novel machine or a unique process, perhaps for preparing a new plastic, but only improve existing products or processes. The Arbitration Board has considered such aspects several times. It appears to be quite plain that calculating the invention value can produce two quite different results, depending upon whether the license is calculated on the basis of the value of the total device as a "unit of reference" or on only a portion of it.

This is best illustrated by an example. In the following case, both alternatives were possible. The device was a packaging machine for filling milk into three-cornered paper containers. The device became fully automatic only upon incorporating a certain invention. In addition, an existing arrangement for sealing the containers was improved. Patent applications were filed and patents granted.

In the case of the first invention, the Arbitration Board used the entire machine as a unit of reference, except for those portions of the machine which had no relationship at all to the invention, such as its operating motor, its substructure, and similar parts. For the second invention, the Board considered only the sealing device. The effects were as follows: of the 100,000 marks, representing the value of the entire machine, 60,000 remained as a unit of reference after the value for the neutral or non-invention-related parts was subtracted. The suggested royalty rate for the first invention was three percent. The value of the sealing mechanism was given as 7,800 marks. On the employer's suggestion a royalty rate of 6.5 percent was agreed. Using these two values, multiplied by the number of packaging machines sold, and after considering the participation factor, the inventor received 25 percent of the final figure as compensation for his invention. This amounted to a payment of 31,000 marks for both inventions taken together based on sales made thus far. Compensation was to be paid for future sales based on the same method of calculation. That suggestion was accepted. It is worth mentioning that the Arbitration Board published this particular settlement in the German Patent Office Gazette (*Blatt für Patent-, Muster- und Zeichenwesen*). Since 1959 more than 50 settlements have been published there.

(c) The catch phrase used earlier "reducing the royalty rate in the event of large volumes of sales" takes into account the fact that industry today frequently achieves very high sales as a result of a new or improved product based on an invention. Such sales are often in excess of one million marks, sometimes ten million, and occasionally even more than one hundred million, as might be the case for a particularly successful drug, for mass-produced articles of the electronic industry, for fluorescent lights, or similar commodities. In such in-

stances, it is not infrequent, even in license agreements, for the royalty rate to be reduced for given amounts in excess of a certain sales level. Similar considerations apply also in the case of employees' inventions. Even though the invention itself forms the basis for such considerations, there are many relevant factors not related to the invention, such as the reputation, size, advertising and international relations of a large enterprise. It therefore appeared reasonable (and this has also been the position taken by the Arbitration Board) to apply an inverse sliding scale for sales in excess of one million marks, as suggested in point 11 of the 1959 Directives. The royalty rate is progressively reduced for sales made during the entire term of the patent or utility model, or during the term of production, but not for the respective annual sales volume. For sales worth more than fifty million marks the basis for calculation will be a royalty of one to two percent, for example, instead of a five-percent royalty adopted initially. A close relationship exists between the amount of a royalty rate and its reduction — if a low figure is chosen from the very beginning, scaling off can be dispensed with later on. This was the suggestion made by the Arbitration Board in the case of a confirmed order for 180 devices with a value totaling 18 million marks.

(d) In cases where an inventor is compensated in a lump-sum payment toward the beginning of a patent term, it may happen that sales increase quite unexpectedly. Experience has shown that this situation is the one occurring most frequently, and is relied on in requests for reassessment of compensation under Section 12(6), which requires a "substantial change in circumstances" to have occurred. The Law expressly provides for this *clausula rebus sic stantibus*. Certain fluctuations must of necessity be accepted — such as a 100% increase in the sales used as a unit of reference for the compensation. The social purpose of the Law is seen in the proviso that a refund of compensation payments already received cannot be requested, even if the relevant clause applicable to both parties would call for a reduction in compensation.

(e) Section 12 requires compensation to be paid for an unlimited claim within three months following grant of the industrial property right. Since the grant procedure is lengthy, the invention is frequently put to use at a considerably earlier date. In a remarkable and still controversial decision "Cromegal" (June 28, 1962), the Federal Supreme Court, the highest civil court, held that compensation must be paid, even prior to the grant of a patent, where the invention is being used. The decision thus does not take account of the fact that there has been no complete determination as to whether an industrial property right can be granted in the specific case. In a recent judgment, the Federal Supreme Court went one step further, ruling that compensation must be paid for the duration of the grant procedure, even if a final decision has issued in the meantime holding the invention to be ineligible for industrial property protection. These decisions are being strongly criticized in Germany. However, it should be noted that they require payment only of a temporarily assessed compensation, whose amount is less than would have been the case had a patent been granted.

4. Industrial Property Rights Abroad

The list of topics still under discussion in Germany might be concluded with a brief consideration of industrial property rights abroad. The duty to compensate an inventor is not linked only to the grant of a domestic patent, but also to the grant of a foreign patent. This question still gives rise to much controversy. The Arbitration Board has considered compensation to be payable whenever any use of the invention in terms of Section 6 of the Patent Law has occurred, namely production, putting on the market, offering for sale and use. It follows that compensation must also take into account exports made from countries where there is patent coverage to countries where there is not. Furthermore, compensation is also payable where a domestic patent is not granted but the invention is worked and a foreign patent obtained for it. If an employer frees the invention to permit the inventor to file an application abroad (which he must do if he does not wish to file abroad himself, Section 14) he may reserve for himself a non-exclusive right to use the invention against payment. However, the employer is not free to grant sub-licenses — this is the position taken by the Arbitration Board, which has been criticized.

IV. Conclusion

A survey of the fifteen years during which the Law on Employees' Inventions has been in force in the Federal Republic of Germany, shows that its effects have been beneficial. The Law has not prevailed in all respects. Many inventors are not aware of the Law or dare not take advantage of their rights under it. When they do, however, they can be assured that the courts and the Arbitration Board will support them in their request for reasonable compensation provided the legal prerequisites have been met, even if the amount of compensation may be lower than they expect. It is true that for inventions that are used, hundreds or thousands of marks are frequently being paid; for successful inventions these amounts may be 100,000 marks and even more. Nevertheless, this is no burden to industry compared with amounts spent for social security contributions and taxes, in addition to wages and salaries. Federal statistics for 1968 indicate that a reduction of taxes amounting to ten million marks was estimated for that year as a result of the 50% tax exemption allowed for compensation paid to inventors. The Government thus contributes to the promotion of inventive activity through such tax allowances. Not only the economy as a whole, but I believe also the employer benefits from such incentive, since it augments the employee's interest in his work. The Law provides a realistic approach to assessing compensation, particularly when supervisors are also co-inventors. Furthermore, it provides that insignificant inventions made only for the purpose of receiving compensation, are to be granted a small payment or none at all — the Directives, point 38, list zero if both the invention value and the participation factor are low. In these ways, the Law prevents jealousy and hard feelings among colleagues. Similar considerations apply to voluntary payments by an employer for technical improvement proposals.

The prevailing opinion appears to be that a realistic application of the Law permits it to function satisfactorily, contributes toward social peace and is also of service to employers.

subject of a valid patent if the intrinsic and extrinsic elements of novelty are present.

Intrinsic novelty is present when the activity of the person achieving the result is creative in character and not a mere execution or application of ideas which come into the category of normal and common experience. These principles were reaffirmed, in almost the same terms, in another decision of the Court⁹ in which it was stated that:

"The originality required for an invention to be patentable is present when, irrespective of the degree of novelty of the result, the activity of the person achieving it is creative in character and not a mere execution of known ideas which come into the sphere of normal technical application of known principles."

and that

"An invention has intrinsic novelty when the result presents a *quid novi* in the sense of being hitherto unknown."

The Court added that it had no power to consider this element since it was a question of fact and not of law. The Court also stated, of course, that where a patent has been declared null and void the intrinsic and substantive elements of the patented articles, already known and used, may be freely reproduced.

D. Improvement Inventions and Combination Inventions

The *Corte di Cassazione* has given¹⁰ the following definition of an improvement invention: the invention must embody something new, even if only partly new; it must bring a more practical solution, from a technical or economic point of view, to a technical problem already solved by a previous invention, in such a way as to represent, in any event, a technological advance.

For combination inventions, there is an important decision of the Turin Court of Appeal, which followed a ruling of the *Corte di Cassazione* in a decision of March 14, 1968¹¹. The Turin Court of Appeal held¹² that for a combination invention to exist, there had to be an original and ingenious coordination of different elements or means which were already known, even if only in part, bringing about a new industrial result which could be evaluated in economic terms and which could not previously be achieved by the use of the various elements, parts or means taken separately.

TRADEMARKS

In the trademark field, two decisions of the *Corte di Cassazione* and three of the Court of Appeal are worth mentioning.

A. Strong and Weak Marks

The *Corte di Cassazione*, in a decision of October 29, 1971¹³, stated that:

⁹ *Ongaro v. Soc. co. al. mi.*, No. 3706 of December 21, 1971 (*Massimario del Foro italiano*, 1971, p. 1079).

¹⁰ *Cattelino e Borla v. Gallina*, No. 2022 of June 26, 1971 (*Giurisprudenza italiana*, 1971, I, 1, p. 1656).

¹¹ *Flli Costa v. Allard*, No. 821 of March 14, 1968 (*Giurisprudenza italiana*, 1968, I, 1, p. 1178).

¹² *Simca Italiana S. p. a. v. Mosconi*, May 23, 1970 (*Giurisprudenza italiana*, 1971, I, 2, p. 121).

¹³ *De Matteo Euromec S. p. a. v. Magazzini Calzature Super Mec S. p. a.* (*Giurisprudenza italiana*, 1972, I, 1, p. 285 and *Massimario del Foro italiano*, 1971, p. 877).

"The category of weak marks is not identical to that of expressive or descriptive marks or marks indicating the nature of the goods concerned; it is broader since words which are in common use or have become so, by custom or trade usage, are also bound to contribute to the weakness of the mark."

The determination of confusion has thus become less strict since, in the case of a weak mark, even minor alterations or additions are sufficient to rule out a finding of confusion. In the case in point, the Court upheld a decision of the Genoa Court of Appeal, which had qualified as strong the mark "Super Mec": it considered that the monosyllable "Mec," which was the central element of the mark, was intended to make a phonetic and visual impression on the imagination by its originality and was therefore endowed with considerable distinguishing power. The decision would seem to be questionable since there must now be a number of marks in Italy and the other Common Market countries which end with the monosyllable "Mec," the symbol used in Italy for the Common Market, made up from the initials of the three words *Mercato Comune Europeo*, rearranged for ease of pronunciation. The conflicting mark was "Euromec," and to say that "Super Mec" and "Euromec" are mutually confusing because "Mec" is an original word endowed with great distinguishing power would seem open to doubt. The *Corte di Cassazione* endorsed the principle adopted, holding that a question of fact was involved which was outside its competence. However, the opposite could well be argued: that "Mec" is a common word which, in the case in point, was being used in none other than its normal sense.

B. Licensee's Right to Take Proceedings

The case concerned here had two characteristics: the firm Superball-Vis, owner of a license for the use in Italy of the mark "Superball-Vis" to designate footballs, had sued another Italian firm for marketing a rubber ball under the name "Superball"; the defendant challenged the plaintiff's capacity to sue, on the ground that the license had not been recorded in the Trademark Register.

The *Corte di Cassazione* emphasized¹⁴ that the question whether an assignment or license had been recorded or not had no relevance to the terms or the validity of the instrument concerned. The purpose of recordation was to advertise the transaction in such a way as to protect third parties in good faith and also to legally establish the priority of the person who first records the transaction. In the present case, the Court held that, since the dispute was between a licensee and a third party and not between successive licensees, the failure to record the license in the Register was irrelevant; unrecorded license or assignment instruments were valid and binding on third parties.

C. Trademark Interpretation

In a decision of April 10, 1971¹⁵, the Turin Court of Appeal departed from one of its own previous decisions in which it had held that the mark designating certain goods

¹⁴ *Orlandini v. Superball-Vis s. n. c.*, No. 1945 of October 12, 1970 (*Giurisprudenza italiana*, 1971, I, 1, p. 28).

¹⁵ *O. V. A. M. v. Fonti Levissima S. p. a.* (*Giurisprudenza italiana*, 1971, I, 2, p. 775).

(candies with a hole) was a figurative mark and not a mark in the shape of the package¹⁶. In the recent case it decided, on an interpretation of the "declaration of protection" annexed to the application concerned, and not only of the actual text of the trademark patent, that the mark should be considered as a three-dimensional mark, i. e. a mark in the shape of the package. The Court went on to confirm that such marks were eligible for protection in Italy and stated that the subject matter of the mark was identified in the declaration of protection, whose interpretation should be governed by the normal rules of construction of the parties' intentions.

D. Plant Variety Trademarks

The Bologna Court of Appeal rendered a decision¹⁷ concerning the mark "Springtime," used for a variety of peach tree bred in the Armstrong nurseries of Ontario, California, by crossing three other varieties. Armstrong of California did not originally file "Springtime" as a mark and the name eventually came to designate a variety of peach tree, thus ceasing to be usable as a mark. These were the grounds on which the Bologna Court of Appeal denied the denomination any distinguishing power, considering it to have become completely generic in character. The mark was therefore to be regarded as invalid. The Court concluded by saying that this did not mean that plant variety denominations were not eligible for trademark protection: it merely meant that the characteristic name of a variety could not be used as a mark.

E. Surnames and Trademarks

Section 13 of the Italian trademark law was amended by Law No. 158 of March 21, 1967¹⁸. The provision now reads:

"Any persons being entitled to a name, trade name (*ditta*), initials or insignia shall have the exclusive right to use it as a trademark in respect of their industry or undertaking provided it does not comprise a name, trade name (*ditta*), initials or insignia identical or similar to one used by any other person in a previously existing trademark for products or goods of the same kind."

The problem immediately raised was whether this provision affected marks already registered under the old legislation, which allowed a surname to be filed as a mark, even if it was similar to a mark already on the Register and likely to give rise to confusion, on condition however that the later registration differed sufficiently from the earlier. The question to be decided, therefore, was whether the 1967 law had retroactive effect, invalidating earlier registrations, or whether the old law nevertheless retained a degree of applicability, justifying the continued validity of earlier marks which were unregistrable under the new legislation.

The *Corte di Cassazione* has not yet adopted any position on these points. However, the Turin Court of Appeal has just rendered an important decision¹⁹ holding that:

"The new provision must be understood as only prohibiting the future exercise of a right which is no longer recognized (that is, the use

¹⁶ *Beetch Nut Life Savers v. Baratti S. p. a.*, July 29, 1961 (*Giustizia civile*, 1961, I, p. 2141).

¹⁷ *Zanzivvai v. Ansaldo*, May 8, 1971 (*Rivista di Diritto Industriale*, 1971, II, p. 42).

¹⁸ *Industrial Property*, 1970, p. 91.

¹⁹ *Lanificio Alta Moda di Igino Zegna v. Ermenegildo Zegna & C.*, July 27, 1971 (*Giurisprudenza italiana*, 1972, I, 2, p. 197).

of one's own name as a mark if an earlier mark is incompatible with it) and cannot therefore be interpreted so as to retroactively render void *ab initio* exclusive rights that were acquired in accordance with the conditions and procedure which were prerequisites for validity under the former system."

The Court added however that the new system introduced by the amendment of Section 13 had the effect not only of preventing the acquisition of exclusive rights incompatible with earlier registrations of third parties but also of rendering unlawful the subsequent exercise of such rights in respect of marks which were similar to a name already registered but which, under the former system, were considered sufficiently different.

UTILITY MODELS

The *Corte di Cassazione* has reaffirmed²⁰ the principle that utility models, like inventions, require intrinsic novelty in order to be valid; such intrinsic novelty consists in the original solution of a technical problem, in other words an innovation capable of giving a known product a particular efficiency and convenience in use (protected creative contribution). The degree of simplicity of the innovation is immaterial, but the solution must not seem so commonplace and obvious that any person having basic technical knowledge in the field concerned would be capable of achieving it. The case decided concerned a protecting screen for a coffeepot, designed to protect the coffee against excessive heat, which simply consisted in an insulating space placed in a certain position.

UNFAIR COMPETITION

A. Object of Protection

According to the *Corte di Cassazione*²¹, what is protected by the action in unfair competition is not the goods of the plaintiff in the action: he has no absolute right to protection, the action in unfair competition being personal in nature. In other words, there can be no absolute right over goodwill; unfair competition is simply one way of carrying on competition (lawful in itself), which becomes unlawful if unfair methods are used. There is always the well-known distinction between an action to protect an absolute right or a monopoly (patents, trademarks and copyright, for example) and an action *in personam*. Thus, while there is a right to protection attaching to the goods themselves when they are covered by a patent, without a patent the right to protection may be accorded, in the form of an action in unfair competition, but only where there is a slavish and misleading imitation of the goods as far as their characteristic — not functional, not traditional, and known — features are concerned (theory of the unessential or unusual form²²).

B. Slavish Imitation

A very important decision was rendered by the *Corte di Cassazione* on October 25, 1971²³. A French firm, Pansu S. A.

²⁰ *Nanni v. Dotti*, No. 3176 of November 10, 1971 (*Massimario del Foro italiano*, 1971, p. 921).

²¹ Decision No. 3292 of November 17, 1971 (*Massimario del Foro italiano*, 1971, p. 957).

²² See the decision of the *Corte di Cassazione*, *Cattellino e Borla v. Gallina*, cited in footnote¹⁰ above.

²³ *Ets. J. Pansu & C. v. Tessitura Meccanica Jacquard Flli Limonta*, No. 3008 (*Giurisprudenza italiana*, 1972, I, 1, p. 67 and *Massimario del Foro italiano*, 1971, p. 872).

of Paris, which inter alia produces posters entitled "Soirée d'Italie" inspired by the French painter Vernet, sued an Italian firm which had made slavish imitations of them. The Italian firm pleaded that it had itself derived its posters from the "famous Vernet painting." A curious feature in the case was that there was in fact no original Vernet painting resembling the landscape on the posters: it was an original idea created for Pansu at the beginning of this century by a designer imitating Vernet's style. The argument of the Italian firm that it had been inspired by an existing work of art in the public domain therefore foundered and, since the two posters were identical, the second was clearly a copy of the first. The important aspect of the Court's decision, however, is its statement of general principle (also significant from the point of view of the Common Market) that the fact that a product is sold chiefly in a foreign country does not disqualify it from protection in Italy against unfair competition by slavish imitation, provided that the Italian market for it is open and may therefore be considered a potential market. In the case it had been proved, by the existence of an agent and other presumptions, that the "Soirée d'Italie" poster had for long been on sale in Italy and had in fact been sold there.

The *Corte di Cassazione* has held²⁴ that a defendant who had reproduced photographs of a competitor's machines and used the reproductions for advertising his own machines thereby committed a misleading act of unfair competition. The Court considered that such use gave rise to a likelihood of confusion between products. A buyer examining the slavishly imitated photographs might think that the same machines were being sold and that it was immaterial whether he approached one manufacturer or the other.

The *Corte di Cassazione* has also held²⁵ unfair competition to exist even where the product slavishly imitated was devoid of artistic or creative character, but contained such original and distinctive features as might indicate the product's origin in a given enterprise and distinguish it from standardized products resulting from ordinary production techniques. In this case the Court reaffirmed its ruling that the comparison of rival products for the purpose of establishing whether or not unfair competition by slavish imitation had been committed should not be made by examining the products in detail and evaluating their individual elements. The products should be looked at as a single combination of elements, account being taken of all the important features including those which in themselves lacked distinguishing power but, taken together with the others, formed a characteristic whole whose imitation could give rise to confusion.

C. Professional Propriety

Section 2598 of the Italian Civil Code contains a general provision (paragraph (3)) which renders unlawful as an act of unfair competition the direct or indirect use of methods that are "contrary to the principles of professional propriety

²⁴ *Flli Bruno s.n.c. v. Costruzione Meccaniche S.r.l.*, No. 1985 of October 13, 1970 (*Giurisprudenza italiana*, 1971, I, 1, p. 1477).

²⁵ *Prinoth v. Soc. ANRI*, No. 2106 of July 6, 1971 (*Giustizia civile*, 1971, I, p. 1564).

and are likely to damage another's business activity." There is however still a dispute as to the definition of what professional propriety actually is. There have been a number of decisions on the subject. The *Corte di Cassazione* has held²⁶ that it is an act contrary to professional propriety to seek to obtain information on a competitor and on elements which, even if not strictly industrial secrets, the competitor does not wish to disclose to third parties, especially those operating in the same sector who might use them in the preparation of competitive programs. The decision is also important in that it reverts to the concept of self-defense as a possible distinguishing factor in connection with acts of unfair competition, and admits such defense where the competitor against whom the act in question is directed had himself been guilty of an act of unfair competition against the person retaliating, provided that the action of the latter is kept within the bounds of what is necessary to neutralize the effect of the action of the former. Finally, the Court held that acts of unfair competition might be imputable to a competitor even where they are committed by a contractor or employee acting in the competitor's interests. In such a case it is not necessary for the unlawful act to have occurred in the course of the duties entrusted to the employee; under Section 2049 of the Civil Code, the existence of the competitor's interests is a sufficient factor. The mens rea element must have been present in the person who actually commits the act (contractor or employee) and not necessarily in the competitor who is liable.

D. Other Cases of Unfair Competition

Untruthful advertisements have been regarded as acts of unfair competition when they credit a particular product or enterprise with qualities or performance which it does not possess, by means of false information likely to deceive consumers and mislead them in their choice between the different alternatives available on the market. What does not constitute unfair competition, on the other hand, are advertisements, however much lacking in objectivity, which contain only generic forms of praise expressed in superlatives²⁷.

In another case the *Corte di Cassazione* has held²⁸ the use as a mark of the surname of one of the partners which might give rise to confusion with a mark previously adopted by others for goods of the same kind, to be an act of unfair competition.

Finally the *Corte di Cassazione* has held unfair competition not to have been committed where a slogan made up of perfectly ordinary words is imitated, provided that the name of the product and its origin rule out any possibility of confusion. The slogan in question was "Non perdetevi altro tempo, non perdetevi altri capelli!" used by the firm Eurocosmesis, representing Hanorah, London, and copied by the firm Cosmesis, representing Helen Curtis of Chicago, for a product designed to combat hair loss.

²⁶ *Cutrupia v. Soc. Martinelli*, No. 2199 of July 9, 1971 (*Giustizia civile*, 1971, I, p. 1956).

²⁷ *Taccia v. Sabbini*, No. 1460 of May 18, 1971 (*Giurisprudenza italiana*, 1971, I, 1, p. 1257).

²⁸ *Calzaturificio Baldan v. S.p.a. Calzaturificio Wessels-Baldan*, No. 2011 of June 25, 1971 (*Foro italiano*, 1971, I, p. 2199).

- February 12 to 16, 1973 (London) — International Patent Classification (IPC) — Working Group V of the Joint ad hoc Committee
- March 20 to 30, 1973 (*) — International Patent Classification (IPC) — Bureau of the Joint ad hoc Committee
- April 2 to 6, 1973 (*) — International Patent Classification (IPC) — Joint ad hoc Committee
- April 9 to 13, 1973 (Geneva) — Committee of Experts on a Model Law for Developing Countries on Appellations of Origin
Object: To study a Draft Model Law — *Invitations:* Developing countries members of the United Nations — *Observers:* Intergovernmental and international non-governmental organizations concerned
- May 7 to June 2, 1973 (Vienna) — Diplomatic Conference on: (a) the International Registration of Marks, (b) the International Classification of the Figurative Elements of Marks, (c) the Protection of Type Faces
- June 4 to 8, 1973 (*) — International Patent Classification (IPC) — Working Group I of the Joint ad hoc Committee
- June 18 to 22, 1973 (*) — International Patent Classification (IPC) — Working Group II of the Joint ad hoc Committee
- July 2 to 6, 1973 (*) — International Patent Classification (IPC) — Working Group III of the Joint ad hoc Committee
- July 9 to 13, 1973 (*) — International Patent Classification (IPC) — Working Group IV of the Joint ad hoc Committee
- September 10 to 14, 1973 (*) — International Patent Classification (IPC) — Working Group V of the Joint ad hoc Committee
- September 24 to October 2, 1973 (Geneva) — Administrative Bodies of WIPO (General Assembly, Conference, Coordination Committee) and of the Paris, Berne, Madrid, Nice, Lisbon and Locarno Unions (Assemblies, Conferences of Representatives, Executive Committees)
- October 29 to November 2, 1973 (*) — International Patent Classification (IPC) — Bureau of the Joint ad hoc Committee
- November 5 to 9, 1973 (*) — International Patent Classification (IPC) — Joint ad hoc Committee

* Place to be notified later.

UPOV Meetings

- October 10 and 11, 1972 (Aarslev) — Technical Working Party for Vegetables
- November 7 to 10, 1972 (Geneva) — Diplomatic Conference
Object: Amendment of the Convention
- November 8 and 9, 1972 (Geneva) — Council
- December 5 to 7, 1972 (Geneva) — Working Group on Variety Denominations
- March 13 and 14, 1973 (Geneva) — Technical Steering Committee
- July 2 to 6, 1973 (London/Cambridge) — Symposium on Plant Breeders' Rights

Meetings of Other International Organizations concerned with Intellectual Property

- October 9 to 11, 1972 (The Hague) — International Patent Institute — Administrative Council
- October 13 to 21, 1972 (Mexico) — International Confederation of Societies of Authors and Composers — Congress
- October 16 to 27, 1972 (Brussels) — European Economic Community — "Community Patent" Working Party
- November 12 to 18, 1972 (Mexico) — International Association for the Protection of Industrial Property — Congress
- December 11 to 15, 1972 (The Hague) — International Patent Institute — Administrative Council
- February 13 to 23, 1973 (Brussels) — European Economic Community — "Community Patent" Working Party
- May 20 to 26, 1973 (Rio de Janeiro) — International Chamber of Commerce — Congress
- October 28 to November 3, 1973 (Jerusalem) — International Writers Guild — Congress

VACANCIES IN WIPO

Applications are invited for the following posts:

Competition No. 184

Head, PCT Section

(Industrial Property Division)

Category and grade: P. 4/P. 5, according to qualifications and experience of the incumbent.

Principal duties:

Under the supervision of the Head of the Industrial Property Division, the incumbent will be responsible for directing the activities of the PCT Section in the definition and carrying out of the WIPO program in relation to the implementation and execution of the Patent Cooperation Treaty*. The principal duties of the post may be summarized as follows:

- (a) participation in the development of the program and in the preparation of proposals for consideration in WIPO and by the various committees of the PCT and the administrative bodies of WIPO;
- (b) implementation and follow-up of such program and proposals, when approved, including studies, drafting of documents, preparation of meetings and representation of WIPO therein, and preparation of reports of such meetings;
- (c) maintaining relations with governmental and non-governmental organizations, consultants and experts dealing with matters of interest to the PCT.

Qualifications required:

- (a) University degree in law or equivalent qualification.
- (b) Wide experience in industrial property including its international aspects as well as a thorough knowledge of the procedures in different countries concerning industrial property rights (in particular patent procedures).
- (c) Ability to supervise and direct a group of highly-qualified officials of different nationalities and to coordinate efficiently their activities.
- (d) Capacity for critical analysis and for the preparation of documents relating to industrial property rights.
- (e) Ability to act as a representative of WIPO in international meetings.
- (f) Excellent knowledge of either English or French and a good knowledge of the other. Ability to work in other languages would be an advantage.

Closing date: October 15, 1972.

* See annex below.

ANNEX

Main items in the WIPO PCT program:

- (i) surveys and studies in the fields of documentation and searching and examination techniques intended to facilitate the completion and maintenance of the required patent collections of the prospective International Searching and International Preliminary Examining Authorities, to coordinate the efforts of abstracting and translating services of interest to those Authorities, and to harmonize the working methods of such Authorities;

- (ii) studies and drafting model provisions with a view to facilitating the implementation of the PCT by national legislations or regional organizations of the Contracting States;
- (iii) drafting Administrative Instructions and forms necessary for the efficient processing of international applications in the International Bureau and for facilitating communications between the international applicants, receiving, designated and elected Offices, International Searching and International Preliminary Examining Authorities, and the International Bureau;
- (iv) surveys, studies and elaboration of measures as provided under Chapter IV of the PCT, particularly with a view to organizing technical assistance to developing countries in the fields of patent legislation and administration, establishment and operation of patent documentation centers;
- (v) preparation of documents for and servicing of meetings of various PCT committees in connection with the above activities, as well as preparation of documents pertaining to the PCT activities for the purposes of the administrative bodies of the Paris Union and WIPO.

Competition No. 187

Technical Counsellor — ICIREPAT Section

(Industrial Property Division)

Category and grade: P. 4

Principal duties:

The incumbent will assist the Head of the ICIREPAT Section in the implementation of WIPO's technical program in the field of patent documentation and information retrieval within the framework of the program of the Paris Union Committee for International Cooperation in Information Retrieval among Patent Offices (ICIREPAT).

His particular duties will include:

- (a) participation in the preparation of WIPO's program in the above-mentioned field, consisting at present of the following items:
 - (i) establishment of magnetic tape standards for international exchange of data among Patent Offices;
 - (ii) study of the usefulness of various computerized or computer-aided storage and retrieval systems with respect to patent documents;
 - (iii) coordination of the indexing work being done under the "shared systems" program;
 - (iv) establishment of recommendations on the physical layout of patent and like documents;
 - (v) maintenance and updating of a survey of existing and planned production of microforms;
 - (vi) establishment of microform standards;
 - (vii) study of requirements for recording texts and bibliographic data of patent documents in machine-sensible form for phototypesetting or photocomposition.
- (b) preparation of meetings organized by WIPO, especially by preparing documents for and reports on such meetings;
- (c) preparation of reports on the work performed and planned in the above-mentioned field of activity;
- (d) assistance in coordinating the work of the International Patent Institute and of the Patent Offices which participate in the technical program relating to the above-mentioned fields;
- (e) participation in the meetings of other international organizations dealing with patent documents and information retrieval.

Qualifications required:

- (a) University degree in a relevant field of science or technology or qualifications equivalent to such degree.
- (b) Thorough knowledge and practical experience in the use of ADP equipment for information retrieval.
- (c) Excellent knowledge of either English or French and a good knowledge of the other.

Practical experience in dealing with documentation problems in the patent field would be an advantage.

Closing date: October 23, 1972.

Competition No. 188

Technical Assistant — ICIREPAT Section
(Industrial Property Division)

Category and grade: P. 3

Principal duties:

The incumbent will assist in the implementation of WIPO's technical program in the field of patent documentation and information retrieval within the framework of the program of the Paris Union Committee for International Cooperation in Information Retrieval among Patent Offices (ICIREPAT).

His particular duties will include:

- (a) assistance in the preparation of WIPO's program in the above-mentioned fields, consisting at present of the following items:
 - (i) establishment of magnetic tape standards for international exchange of data among Patent Offices;
 - (ii) study of the usefulness of various computerized or computer-aided storage and retrieval systems with respect to patent documents;
 - (iii) coordination of the indexing work being done under the "shared systems" program;
 - (iv) establishment of recommendations on the physical layout of patent and like documents;
 - (v) maintenance and updating of a survey of existing and planned production of microforms;
 - (vi) establishment of microform standards;
 - (vii) study of requirements for recording texts and bibliographic data of patent documents in machine-sensible form for phototypesetting or photocomposition.
- (b) assistance in the preparation of meetings organized by WIPO, especially by preparing documents for and reports on such meetings;
- (c) assistance in the preparation of reports on the work performed and planned in the above-mentioned field of activity;
- (d) assistance in coordinating the work of the International Patent Institute and of the Patent Offices which participate in the technical program relating to the above-mentioned fields.

Qualifications required:

- (a) University degree in a relevant field of science or technology or qualifications equivalent to such degree.
- (b) Good knowledge and experience in the field of information retrieval.
- (c) Excellent knowledge of either English or French and a good knowledge of the other.

Practical experience in the processing of patent applications, especially as a patent examiner, and in dealing with documentation problems in the patent field, would be an advantage.

Closing date: October 23, 1972:

Competition No. 189

Head of the International Trademark Registration Section
— in Charge of Classifications
(International Registrations Division)

Category and grade: P.1/P.2 according to the qualifications and experience of the incumbent.

Principal duties:

- (a) In his capacity of Head of the Section, the incumbent will perform, in particular, the following tasks:
 - (i) organization of the work of the Section;
 - (ii) training of new staff members assigned to the Section;
 - (iii) supervision and, according to the needs of the Section, participation in the work relating to the examination of applications for registration of trademarks and requests for renewal as to their conformity with the provisions of the Madrid Agreement and its Regulations; correspondence with national administrations, owners of trademarks or their agents when the application or request does not meet the required conditions;
 - (iv) drafting of written instructions concerning the interpretation of the applicable Agreements and the carrying out of the work of the Section; drawing up or revising the forms used for the requirements of the service; instructions concerning the establishment of the annual tables relating to registrations, renewals and modifications, as well as of the statistics for international registrations and renewals;
 - (v) contacts with national administrations and individuals requesting information on the international registration of trademarks.
- (b) As the person in charge of classifications, the incumbent will perform the following tasks:
 - (i) taking decisions on the classification of goods and services, particularly in the case of disagreement with a national administration;
 - (ii) preparation of working documents and reports concerning the work of the Committee of Experts on the international classification of goods and services for the purposes of the registration of marks, and of the Committee of Experts on the international classification for industrial designs;
 - (iii) collaboration in the working out of proposals relating to the application or revision of the Madrid, Nice and Locarno Agreements;
 - (iv) replacing the Head of the International Register of Trademarks Section in the latter's absence;
 - (v) other tasks of a similar nature as instructed by the Head of the Division.

Qualifications required:

- (a) University degree in a relevant field (preferably in law) or qualifications equivalent to such a degree.
- (b) Very good knowledge of French and a good knowledge of English. Additional linguistic qualifications (especially in German and Spanish) would be a great advantage.
- (c) Ability in drafting documents and correspondence.
- (d) Analytical sense and methodical approach.
- (e) Ability to supervise a specialized service (at present comprising five persons).
- (f) To accomplish the above-mentioned tasks, the incumbent must have a thorough knowledge of the relevant texts (Paris Convention; Madrid Agreement Concerning the International Registration of Marks and its Regulations; Nice Agreement Concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks; Locarno Agreement Establishing an International Classification for Industrial Designs) as well as of the Classifications established by the last two Agreements.

Closing date: October 23, 1972.

*Competition No. 190**External Relations Officer*

(External and Public Relations Division)

*Category and grade: P. 3**Principal duties:*

The incumbent will, in general, assist the Head of the Division in the matter of WIPO's relations with Member States and inter-governmental organizations as well as in the accomplishment of other tasks devolving upon the Division.

In this connection his duties will include in particular:

- (a) contacts with Government authorities, concerning matters within the competence of the Division;
- (b) participation in preparation and organization of meetings held by WIPO and drafting of documents, particularly when they concern the field of intellectual property rights in developing countries;
- (c) contacts with intergovernmental organizations, especially those of the United Nations system;
- (d) participation in meetings of such organizations;
- (e) drawing up of reports and other working documents dealing with the activities of those organizations, to the extent that such activities are of interest to WIPO.

Qualifications required:

- (a) University degree in law or other university qualification in a relevant field (in particular, political science or public administration).
- (b) Familiarity with the activities and procedures of the United Nations, its bodies and specialized agencies. Some knowledge of intellectual property, especially its international aspects, would be an advantage.
- (c) Excellent knowledge of English and at least a good knowledge of French.

Closing date: November 30, 1972.

With regard to the posts mentioned above:

Nationality:

Candidates must be nationals of one of the Member States of WIPO or of the Paris or Berne Unions. Qualifications being equal, preference will be given to candidates who are nationals of States of which no national is on the staff of WIPO.

Age Limit:

- Competition No. 184: in the case of appointment on a probationary basis: grade P. 5, less than fifty-five at date of appointment; grade P. 4, less than fifty at date of appointment.
- Competition Nos. 187, 188 and 189: less than fifty at date of appointment.
- Competition No. 190: in the case of appointment on a probationary basis, less than fifty at date of appointment.

Date of entry on duty:

To be agreed.

Applications:

Application forms and full information regarding the *conditions of employment* may be obtained from the Head of the Administrative Division, WIPO, 32, chemin des Colombettes, 1211 Geneva, Switzerland. Please refer to the number of the competition.