P I P A

presentations

22nd CONGRESS

Rochester
1991

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(1) Title: Patented Inventions Relating to Application Software

(2) Date: October 1991 (The 22th Convention in Rochester)

(3) Source

1. Source: PIPA
2. Group: JAPAN
3. Committee: 1

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(5) Key Words: "Invention of software", "Application software", "Computer", "International patent Classification"

(6) Statutory Provisions: Japanese Patent Law Section 2
US Patent Law Section 101

(7) Abstract:

This document reports results of our survey concerning on patented inventions relating to software, especially those relating to software featuring their applications.

There are many patented inventions relating to software featuring their applications also in Japan. For 5 years from 1986 to 1990, patents were issued to more than 1800 inventions classified as G06F15/20 (digital computing suited to particular applications) in the international patent classification.

Inventions relating to software products suited to particular applications have been patented in most technological fields. For instance, such software products as an enterprise model simulation system, a method for processing data for clerical works in medical field, an order processing system, a convention support system have been patented.

I. Introduction

1. Purpose of this paper

This paper is prepared to introduce the general situation concerning patented inventions relating to software, especially those relating to application software products in Japan to PIPA members in the United States so that they will be able to take into considerations the general situation when filing patent applications in Japan.

In other words, this paper is prepared to give PIPA members in the United States concrete images as to what types of inventions can be patented in Japan. For this reason, the general contents of Japanese Patent Law or criteria for examination of patents in Japan is not introduced in this paper.

2. Reason why inventions relating to application software are given attention

At first, we will discuss what is a patent for software now gathering hot attentions in both the United States and Japan. As for US patents, now the following topics are gathering hot attention.

[Efficient resources allocating method]: The US Patent No.4744028 and other 2 patents are so-called Karmarker patents. Actually these inventions relate to a mathematical solution for a linear planning method, but have been patented as a method for efficiently allocating resources. [Fluid path deciding means and manufacturing method]: The USP No.4787421 discloses an invention for determining a fluid path or a streamline shape of substance, which can be regarded as a mathematical solution. [Call control by graphics]: The USP No.4653090 defines movement of an icon in the Claims section, but the patent does not define any relation between movement of an icon and terminals. The patent claims only the man-machine interface section. So this is a patent relating to an application of a computer software product.

The following Japanese patents gathered attentions in newspapers and magazines in Japan.

[Enterprise model simulation system]: Japanese Patent Publication No.58-51299 is a system which simulates a business result of a designated company in a specified accounting period. Although expression such as model file and logic section, which apparently suggests hardware, are used in the Claims section, it can be said that this system executes artificial conventions in a computer system. This system was introduced in September 14th, 1987 issue of Nikkei Computer. [Magnetic card based transaction point clearance system]: Japanese Patent Publication No.2-34079 proposes a POS system in which magnetic cards are used in place of the existing stamp service. It can be said that this invention is for replacement of human manual works (such as adhering stamp seals on a ledger or counting up stamp seals with automatic works comprising magnetic cards, terminals and a host computer. Nikkan Kogyo Shimbun reported on March 1, 1991 that most of the point service systems using magnetic cards infringe this patent. [Device for financial works and stock management]: Japanese Patent Publication No.1-23814 relates to a technology to enter data for financial management as well as for stock management using a common journal format. Magazines and newspapers reported that the patentee had brought a suit against 12 computer companies asking them to stop manufacturing and selling their software products. (Asahi Shimbun, March 26,1991; Nikkei Electronics, November 12, 1990; Nikkei Hi-Tec Information, April 15,1991).

As described above, patents related to software products featuring their applications are now gathering hot attentions both in the United States and Japan. We have a general impression that patentable fields have been rapidly expanding. For this reason, we pay special attention to application software products and decided to make a survey on patents in this field and report the results.

3. Objects for our survey

It can generally be considered that inventions relating application software exist in a very wide area.

The most representative one is application software for general purpose computers, and in addition to it there are electric houseware controlled by a microcomputer and telephone system. The applications for general purpose products range from those directly related to users' works to maker-oriented ones implemented in computers.

In this paper, we pay special attention to applications for general purpose computers, because, as we described above, many cases reported in newspapers and magazines in the United States and Japan relate to this field.

The IPC having the closest relation with applications for general purpose computers is G06F15/20. In addition to it, there are patents relating to user interface and classified to G06F3/14, those classified to G05B such as CIM, and those classified to G06F9 such as expert systems.

This report analyzes the general situation on publication of applications for patents which can be classified to IPC G06F15/20 "Patents relating to digital computers - featuring specific applications and relating to configuration of the computing sections", and describes the trends and a range of patentable applications in this field.

Also, in order to introduce what types of invention are patentable, we take up only applications for patents, which passed examination and were publicized by the Japanese Patent Office. We take up only patents and exclude utility models, because utility models generally aim at forms, construction and combinations of articles and little relate to software.

The survey was performed by using PATOLIS, which is a patent information retrieval system in Japan.

II. Patented Invention

1. Application-related inventions and trend in number of patent publications

The survey and analysis of patented inventions were made on both macro data and individual cases.

In the field of macro data, we made a survey on a historical trend in the number of patent publications in all classifications, those classified to G06F (digital computing), and those classified to G06F15/20 (relating to digital computing suited to particular applications). The survey result shows that the number of patent publications in G06F15/20 had increased remarkably and the percentage in all all patents in G06 is more than 40%. Also, during the period from 1986 to 1990, 1831 patents, which can be classified to G06F15/20,have been issued. This is shown in Table 1.

2. Expansion of a range of patentable inventions and a number of publicized patents

Next, we made a study on expansion of a range of applications of patents in the category of G06F15/20 to know how a range of patented inventions relating to application software has been expanding, hoping that the information would be useful for people who want to make an application for a patent in Japan. For this purpose, we subdivided the technologies included in G06F15/20 according to particular applications thereof. Technologies based on lower conception included in G06F15/20 are

included in the international patent classification table, the information is inadequate to know concrete applications of the technologies, so we classified the technologies according to applications we defined for ourselves, taking into considerations the international patent classification table as a basis. IPC for application patents and the numbers of patent publications in the period from 1986 to 1990 are shown in Table 2 and the numbers of patent publications during the period from 1986 to 1990 in each application field which is originally classified is shown in Table 3 "Patented Inventions in Each Application in G06F15/20".

Table 2 shows numbers of patent publications in each category in IPC G06F15/20. The search was made for only publications of applications categorized in the major classification, and the table shows the numbers in each year for 5 years from 1986 to 1990. Note that a point put on left side of each classification item follows the notation in the IPC, and 1 point indicates the highest category and 2 indicates the second highest category. As the point number increases, the point indicates a lower category. Also, patents which do not correspond to any of the lower conceptions are classified in G06F15/20. Data for the period from 1986 to 1989 follows the classification in the IPC 4th edition, while data for 1990 follows classification in its 5th edition, but the notation has been unified according to the 4th edition. Total patents for the 5 years, which was analyzed in our study, are 1831 items. The numbers in this table may include errors made during the analysis work, and may not necessarily coincide with other statistic data. The classification does not differentiate hardware from software and includes both of them, but most of the patents relate to software.

The left column for fields and reference categories in Table 3 follows classification in the international patent classification system, while the right column follows our specific classification system.

Examples indicating expansion of a range of patentable inventions relating to application software include word processors, logical simulations, planning support, education support systems, election result prediction systems, nutrition ingestion meters, marketing support, mailing cost computing systems, water demand estimation systems, housekeeping management, road fee computing, reception systems in hospitals, carte management systems, food nutrition computing systems, hotel job management, order processing, card processing, medical service support, schedule management, distribution/transport systems, POS systems, car parking management, tabulation, financial work/stock management systems, ballot totaling in racecourses, window machines, ATM, translation systems, IC printed board layouting, image processing , and others, and these examples show that the range of expansion is very wide. It may be considered that patents can be given to the inventions of virtually every application field.

3. Trends of patents in each remarkable application field

Furthermore, we selected the following 5 fields as the most remarkable applications in G06F15/20; (1) finance, (b) distribution and management works, (c) production and designing works, (4) clerical works for medical services, and (5) betting.

Then, we investigated the technological trends by analyzing publicized patents in these fields. Depending on the results, we can understand what types of technologies and applications the application software products relate to. The results are shown as tendency of patents in remarkable fields.

(1) We selected the following 5 fields as the most remarkable application fields.
   (a) Finance (approximately corresponding to G06F15/30)
   (b) Distribution and transportation works (G06F15/21)
   (c) Production and designing (Patents selected mainly from those classified to G06F15/21, 15/40,15/40,15/62, 15/64,15/70 and 15/72.)
   (d) Clerical works for medical services (Patents selected mainly from G06F15/21)
   (e) Betting (corresponding to G06F15/28)

(2) Content analysis in each field

   (a) Finance

This field relates to money handling for financing (in banks) and accounting works, and the number of patent publications for these 5 years is 126 items (13% of all patents in the entire remarkable fields).

Applications for patents relating to ATM (automatic stellen machines, to satisfy needs for automated work at windows of offices or for Sunday banking is remarkably many, 67% of the patent publications in this fields. The ATM-related patents in most cases aim at simplifying systems to handle money or process cards, enhancement of operability, minimizing machines by means of, for instance, improving the guidance display systems, space saving, minimizing time required for processing, easily recoverability from troubles caused by miss operation or system failures, and improvement of reliability of ATM by introducing better countermeasures for prevention of customers' troubles. Most of the applications are carried out by micro-programs incorporated in each equipment or hardware.

In addition, there are a few patents relating to prevention of illegal use of bankbooks or cards, methods for automatically processing forms for payment of public fees, methods for issuing notes, customer ranking, efficient recognition of individuals, firm banking systems, inter-bank transaction systems, and banking systems.

   (b) Distribution and management works

Most of the patents in this field relate to management works such as those in the distribution service industry, and the number of patent publications for the 5 years is 116 items (12% of total patents in all of the remarkable application fields).

Of these, many patents relates to POS systems, and the percentage is 33% of the patent publications in this field.

Other patents relate to, for instance, card processing, order processing, works for stock

transactions, schedule management and jobs in hotels, and some of the remarkable examples are introduced below.

POS-related patents range from tabulation of data on goods sold in each store, systems for shortening time required for processing accumulated data and stock management to automatic selling machine POS, oil supply system POS and even to ordering systems in restaurant.

Patent publications relating to card processing in most cases aim at prevention of misses in credit verification in credit services, or reduction of time required for processing cards.

As for patents relating to stock transaction works, those relating to stock price display systems allowing direct input of stock name code or improvement of efficiency in online equity data processing systems have been published.

In relation to jobs in hotels, information guidance systems inside hotels, patents relating to visitor's room management systems, and in-room beverage and foods management systems such as refrigerator have been published.

(c) Production and designing

The number of patent publications in this field during these 5 years is 672 items (70% of all patent publications in the remarkable fields).

This field can be subdivided to the following 3 sub-fields.

(i) Patents relating to system control such as FA (for instance, robot control) or expert systems, AI-related patents and those relating to various types of designing work support system

The number of patent publication in this sub-field is only 35 of all patent publications in this field.

(ii) Patents relating to data base (or data processing)

Percentage of patent publications in this sub-field is 9% of all patent publications in this field. Many patents in this sub-field relate to information retrieval from drawing or image files.

(iii) Patents relating to processing of various types of image such as documents, maps, moving pictures and three-dimensional images, and those relating to CAD/CAM

The number of patent publications in this sub-field is 88% of all patent publications in this field, and most of them relate to drawing or image processing. There are many patents relating to object recognition, object inspection, X-ray image analysis, and various types of verification/recognition system. In the field of CAD, there are patents relating to printed board design layouting, die cast designing, architecture designing support, and drafting.

(d) Medical services

Patents in this field relate to clerical works for medical services (especially management works), and the number of patent publications in this field for these 5 years is 13 items (only 2% of all patent publications in the remarkable fields. The patent publications

mainly relate to processing or searching clinical records, simplification of reception works, reduction of time required for preparation of medicines, and preparation of receipts.

(e) Betting

The number of patents in this field published for these 5 years is 32 items (only 3% of all patent publications in the remarkable fields). Most of the patents relate to automation of horse racing ballot ticket issuing work and payment of dividend. Concretely, the patents relate to horse raging betting-ticket balloting system using public communication network, dividend payment systems, portable balloting systems and automatic betting-ticket selling machines. Also there are patent publications relating to prevention of generation of miss calculation, improvement of counting systems to discover illegal races, and bidding systems not requiring tenkey operations.

III. Examples of Patent Publication

We introduce below outlines of several patent publications so that the readers will have a concrete image on patents relating to application software in Japan. What is common to these examples is that the patents are claimed by specifying jobs or applications performed in a computer system and defining a method or a device for carrying out the specific processing. Most of tasks performed by a computer system have the possibility to be patented.

Document A introduces a summary of several examples of patent publication.

Document B is a list of patent publications classified according to application fields.

These patents introduced in the two documents above were picked up as interesting ones as patents relating to applications.

As for applicants, there are a few cases of joint application by users and manufacturers and independent applications by users. It can be considered that generally users well know applications and are advantageous in applying patents relating to application software.

Table 1 Historical Trend in the Number of Patent Publications by Category

	All categories (A)	G06F as a whole (B)	G06F15 /20; (C)	B/A (%)	C/B (%)
1986	62,000	1,687	281	2.72	16.7
1987	62,480	1,484	174	2.38	12.0
1988	67,880	1,328	332	1.96	25.0
1989	61,280	1,340	519	2.19	38.7
1990	63,320	1,290	525	2.04	40.9
Total	316,960	7,129	1,831	2.25	25.8

(1) The category G06F includes all of hardware, systems and applications relating to digital computer systems. The number of patents in this category annually published for these 5 years is in a range from 1,300 items to 1,600 items. The percentage in all patents annually published is in a range from 2 to 3%. Note that a change in the number of patents in this category annually published is not correlated to that in all categories.

(2) The category G06F15/20 (including lower categories) relates to applications of digital computer systems. The increase of patent publications in all categories for these 5 years is rather flat, but that in this category is remarkable. The ratio of patent publications in G05F15/20 to patent publications in the entire G06F category (C/B) has been rapidly increasing, which indicates that the category has been becoming increasingly important.

Table 2 IPC G06F15/20 and the Lower Categories, and the Number of Patent Publications (Data from IPC 4th Edition)

	International patent classification	Code	'86	'87	'88	'89	'90	Total
A	* Design or configuration of computing section applied to a particular application	15/20	33	29	83	88	98	331
B	** For management or jobs	15/21	25	11	34	31	31	132
C	*** Preparation of slips	15/22	5	0	3	14	0	22
D	*** Stock management, order management jobs	15/24	3	2	0	0	2	7
E	**** Reservation for seats	15/26	5	1	0	1	0	7
F	*** For betting	15/28	13	4	7	7	1	32
G	*** Accounting works in banks or similar organizations	15/30	27	11	8	21	59	126
H	** Complex mathematical computation	15/31						
|	*** Solving equations	15/32						
|	**** Solving simultaneous equations	15/324						
|	**** Solving differential equations	15/328						
|	*** Solving area transformation such as Fourier transformation	15/332	61	11	26	15	51	164
|	*** Computing for correlation functions	15/336						
|	*** Matrix, vector computing	15/347						
|	*** Functional computing by means of approximation	15/353						
|	*** Statistical data computing	15/36						
I	** Translation	15/38	3	26	12	31	29	101
J	** Information retrieval	15/40	2	8	4	7	42	63
K	** For medicine	15/42	1	2	1	0	0	4
L	** Game	15/44	0	0	0	0	0	0
M	** Industrial process control	15/46	2	2	1	0	0	5
N	** Traffic control	15/48	0	0	0	1	0	1
O	** Missile control	15/50	0	0	1	0	0	1
P	** Nuclear physics	15/52	0	0	0	0	0	0
Q	** Meteorology	15/54	0	0	0	1	0	1
R	** Distribution network	15/56	0	0	0	0	0	0
S	** Pointing	15/58	1	1	0	0	0	2
T	** CAD	15/60	15	11	38	35	29	128
U	** Image processing or image preparation	15/62	40	7	23	64	47	181
|	** Image acquisition	15/64	5	5	13	23	11	57
|	*** Image processing	15/66	6	11	16	28	23	84
|	*** Image emphasis	15/68	2	13	7	10	20	52
|	**** Image analysis	15/70	6	11	37	108	51	213
|	*** Image generation	15/72	12	1	12	28	22	75
V	** Data collection or acquisition	15/74	14	7	6	6	9	42
	Total		281	174	332	519	525	1831

Table 3 Patent Publications in Each Application in G06F15/20

Item No.	Field and reference category		'86	'87	'88	'89	'90	Total
A	15/20 . Design or configuration of computing section applied to a particular application	10: Word processor	12	26	77	82	86	283
		20: Robot				1		1
		30: Plant control						
		40: Process control					1	1
		50: Numerical/fluid analysis	2					2
	102: ..For education or teaching	60: CPU accounting						
		70: AI, expert system	1		6			7
		80: OS system	1					1
		90: Machine designing support						
		100: Planning support	1					1
		110: Logical simulation				1		1
		120: Decision making simulation						
		130: Education support system	1			2		3
		140: Election result prediction system					1	1
		150: Display control		1			2	3
		160: Nutrition ingestion meter					4	4
		170: Data processing by card image					2	2
		180: Chart editing					1	1
		190: Marketing support					1	1
		200: Input/output device		2				2
		210: Mailing charge computing	2					2

Item No.	Field and reference category		'86	'87	'88	'89	'90	Total
A		220: Water demand prediction	1					1
		230: Housekeeping management	1					1
		240: Road fee computing	1					1
		250: Hospital receipt/ clinical record management	1					1
		260: Food nutrition computing				1		1
		270: Shipping/distri-bution system	1					1
		280: Railroad work system	2					2
		290: Receipt management, cail	2					2
		300: Time recorder	2					2
		310: Schedule management	1					1
		320: Data processing method	1					1
		Total	33	29	83	87	98	330
B	15/21: For management or jobs	10: POS	14	5	9	13	4	45
		20: Hotel management		1	3			4
		30: Order processing	2	1		3		6
		40: Card processing	4	1	8	4	4	21
		50: Automatic selling machine			1			1
		60: Clerical works for medical service			5	7	1	13
		70: Schedule management			3	1	1	5
		80: Distribution/trans-portation system				1	1	2

Item No.	Field and reference category		'86	'87	'88	'89	'90	Total
B		90: Electronic pocket-book						0
		100: Community systems		1				1
		110: Distribution system (excluding POS)					1	1
		120: Work/process management		2			1	3
		130: Parking management	3				1	4
		140: Office support system			3		1	4
		150: Mailing charge computing					5	5
		160: Copying machine control					1	1
		170: Information supply system					3	3
		180: Home controller					1	1
		190: Building management					1	1
		200: Knitting support					1	1
		210: Others	2		2		3	7
		220: Market research					1	1
		230: Stock transaction				2		2
		Total	25	11	34	31	31	132
C	15/22...For slip preparation	30: Computing for tabulation	1			8		9
		40: Application not specified/not clear	4		3	5		12
		50: Finance/stock management				1		1
		Total	5		3	14		22

Item No.	Field and reference category		'86	'87	'88	'89	'90	Total
D	15/24... For stock management, or verification and guidance 101 .... For verification and guidance	20: Others	3	2			2	7
E	15/26....For seat reservation		5	1		1		7
F	15/28 ...For betting, for instance, for betting Totalizeta (3)		13	4	7	7	1	32
G		10: ATM window system (Automatic transaction machine, tellers machine) (Those wherein an invention is close in a single unit)	10	10	4	16	44	84
		20: Banking system (based on a host program) Firm banking, stamp registration, bank card	7	1	1	4	5	18
		30: Accounting jobs in organizations other than banks, for calculating business trip fee	4			1		5
		40: Calculation of salary						
		50: Others	6		3		10	19
		Total	37	11	8	31	59	126
H	15/31 ..For complex mathematical computing, for synthesizing or analyzing complex functions		61	11	26	15	51	164
I	15/38 For language translation (excluding word and Kanji/Kana convention)		3	26	12	31	29	101

Item No.	Field and reference category		'86	'87	'88	'89	'90	Total
J	15/40 For information retrieval, preparation of summaries, or for building database for it Those, applications of which could be identified	10: Retrieval of drawings and images (Electronic file)		3	3	5	11	22
		20: Database manager					2	2
		30: Especially map information					1	1
		90: Others	2	5	1	2	28	38
		Total	2	8	4	7	42	63
K	15/42.. For medicine, for biology		1	2	1			4
L	15/44.. For games							0
M	15/46 .. For industrial process control such as quality control		2	2	1			5
N	15/48 .. For traffic control					1		1
O	15/50 .. For guiding vehicles or missiles to a pre-specified orbit, such as software systems which are loaded in a vehicle or a missile				1			1
P	15/52 .. For nuclear physics or atomic engineering							0
Q	15/54 .. For meteorology, or, for instance, for weathe forecast					1		1
R	15/56 .. For distribution network (For instance, for electric circuit network)							0
S	15/58 .. For pointing (for instan e, for bombing)		1	1				2

Item No.	Field and reference category		'86	'87	'88	'89	'90	Total
T	15/60 .. For designing by using a computer (For instance, for CAD)	Those, application of which could be identified	6	7	10	12	8	43
		10: IC, printed board layouting						
		20: Simulation	1					1
		30: Knitting machine	2					2
		40: Flow chart	1					1
		90: Others	5	4	28	23	21	81
		Total	15	11	38	35	29	128
U	15/62 .. For image processing, or for formatting	10: Other than those shown below	26		8	16	29	79
		20: Document image edit system Document image filing system	5	3	1	6	3	18
		30: Systems for processing or preparing images for maps	4	1		4		9
		40: Systems for processing or preparing images for moving pictures				1		1
		50: Systems for generating three-dimensional images, or for generating simulated views				4	1	5
		60: For medicine	5	2	1	5	3	16
		70: For checking IC or printed board			6	6	3	15
		72: Remote sensing image processing				1		1
		74: For cell identification				1		1
		76: For processing industrial images				5	2	7

Item No.	Field and reference category		'86	'87	'88	'89	'90	Total
U		78: For identifying printed patterns				2		2
		80: Verification system by processing specific pattern images				1	1	2
		90: Seal impression		1	4	9	4	18
		100: Finger print verification			3	1		4
		110: Personal verification (Sign verification)				2	1	3
		Total	40	7	23	64	47	181
U	15/64... Image acquisition	120: Image acquisition	5	5	13	23	11	57
U	15/66... Image processing	130: Image processing	6	11	16	28	23	84
U	15/68.... Image emphasis	140: Image emphasis	2	13	7	10	20	52
U	15/70.... Image analysis	150: Image analysis	6	11	37	108	51	213
U	15/62... Image generation	160: Image generation	12	1	12	28	22	75
V	15/74 .. Data collection or data acquisition	170: Data collection	14	7	6	6	9	42

Document A

"Enterprise model simulation system"
Patent Publication No.58-51299

Applicant: Computer manufacturer G06F15/20

[Claims]

An enterprise model simulation system having an ordinary term model logic section, a settlement term logic section and a totalling term logic section, wherein a trend of an enterprise is simulated for a specified period by using a plurality of model logic sections as described above and results of the simulation is written in a corresponding area in the model data area; characterized in that said enterprise simulation system has model files, a model control data registration/processing section to register model control data such as term type of the enterprise model, a decision term, a totalling term and a start term in said model files, a model data area developing/processing section to develop a model data area depending on model control data read out from the aforesaid model files and term information entered from outside, an enterprise model execution control section to start the aforesaid ordinary term model logic section, settlement term model logic section or totalling term model logic section, and a term control/processing section to tell the aforesaid enterprise model execution control section which model logic section to be started depending on the model control data read out from the aforesaid model files and term control information prepared depending on the aforesaid term information.

[Summary of the invention]

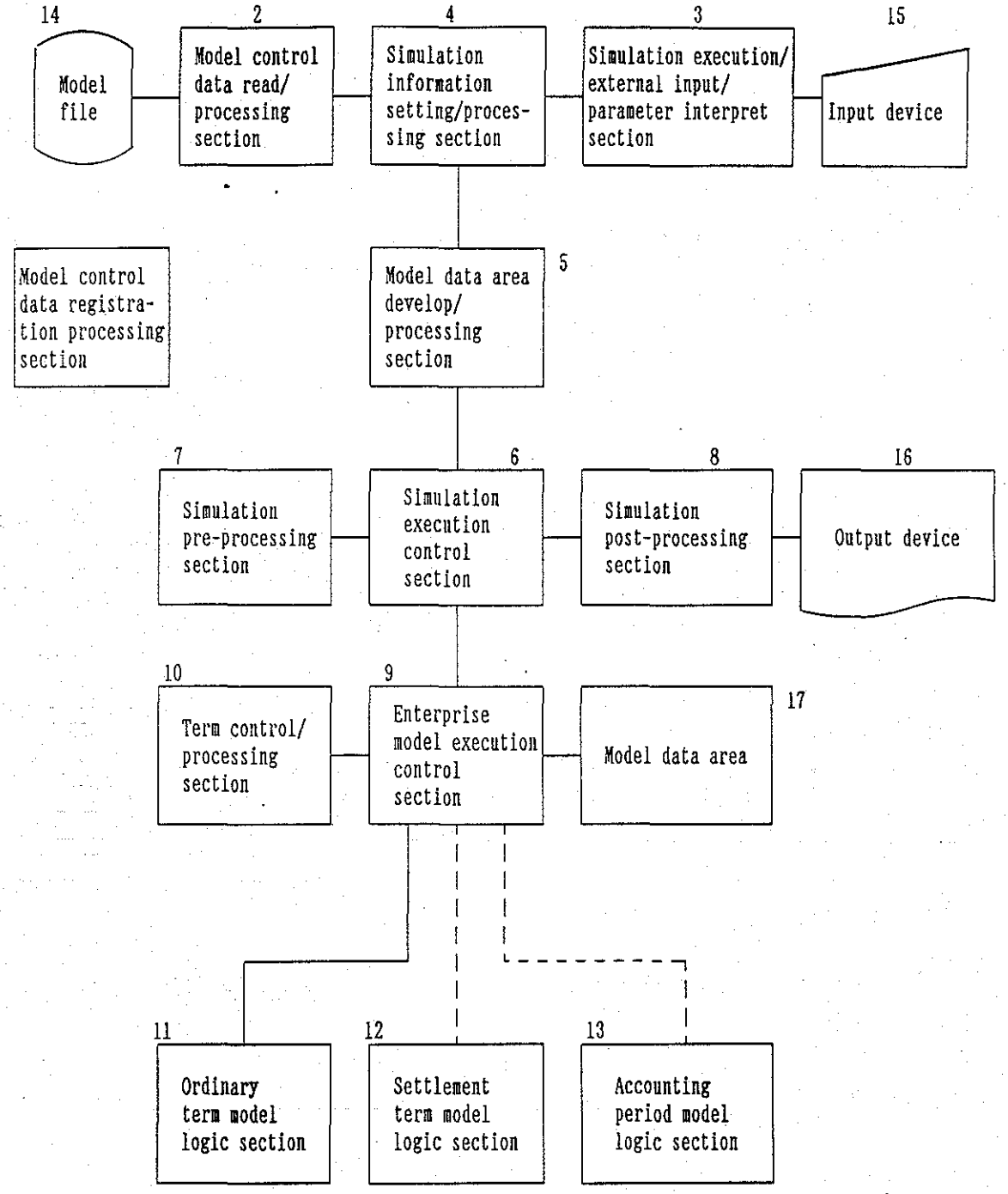
This invention relates to a system to simulate a trend of an enterprise for a specified accounting term.

An accounting term includes an ordinary term, a settlement term, and a totalling term, and in order to simulate each term, an ordinary term model logic section, a settlement term model logic section, and a totalling term model logic section are arranged. By entering data on a term type and a term to be executed, each of the aforesaid logic sections can be selected and executed to simulate a trend of the enterprise.

[Remarkable points]

Conventionally, an accounting period of an enterprise comprises a settlement term such as a upper half or a lower half period and a totalling term for totalling yearly data, and accounting is performed for each term. For this reason, when simulating a trend of the enterprise, naturally simulation has been made according to the term type.

This invention is characterized in that each model logic section is prepared for each of these terms and model setting for each term can easily be made by selecting a necessary logic section.


14
Model file
2
Model control data read/ processing section
4
Simulation information setting/processing section
3
Simulation execution/ external input/ parameter interpret section
15
Input device
Model control data registration processing section
Model data area develop/ processing section
5
7
Simulation pre-processing section
6
Simulation execution control section
8
Simulation post-processing section
16
Output device
10
Term control/ processing section
9
Enterprise model execution control section
Model data area
17
11
Ordinary term model logic section
12
Settlement term model logic section
13
Accounting period model logic section

"Visitor Reservation Control System": Pub. 2-18752
G06F15/21

Applicant: User of Computer

[Claims]

A visitor reservation system comprising a computer having a memory to store reservation information including reserved visitor ID code and a door group code to reserved time and data as well as to each visitor and a central processing unit, a card processor connected to the aforesaid computer, and a means to check coincidence between input data and the aforesaid reservation information concerning a particular visitor, and if the requirements are satisfied, transfer the aforesaid ID code and the aforesaid door group code for the verified visitor from the aforesaid memory via the aforesaid card processor to a magnetic card.

[Summary of the invention]

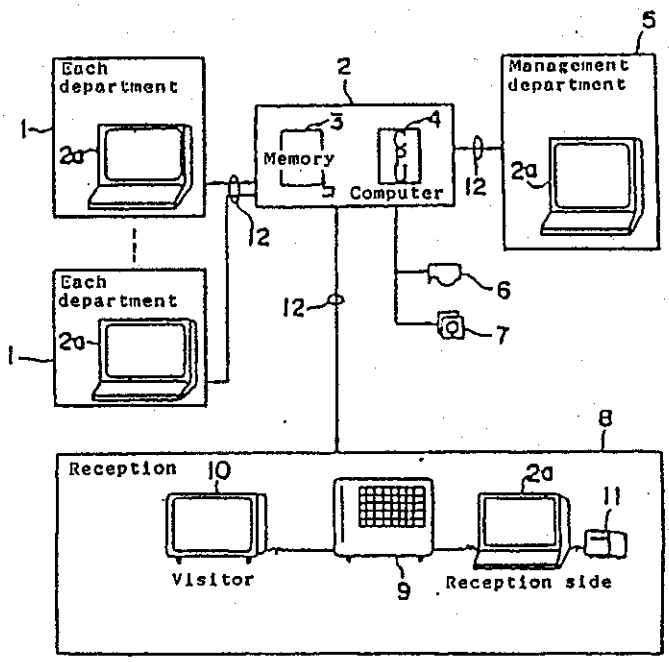
By controlling reservation by and reception of visitors with magnetic cards and a computer system, it is possible to evade increase and complication of reception works required for higher security, and to serve visitors carefully and politely.

[Configuration and operations]

Each department of an enterprise inputs information on a visitor including the visitor's name, name of a person for the visitor to call on, time and date the visit, and a range of the visitor's movement (door group code) from a terminal.

A visitor list and usage of magnetic cards are displayed on a terminal in a management department. In a reception office are installed a terminal for visitors wherein a list of information for visitors can be displayed and a terminal for receptionist. When a visitor comes, the name is input, and the name is verified by referring to data stored in the memory. If verified, a magnetic card for ID is issued by a card processing machine.

Returning of magnetic cards is also put under control. A magnetic card is used to unlock a door by inserting it to the door, and information which allows opening and closing doors in a specified area is recorded in the card.



[Name of the invention Graphic segment manipulating method] Pub. No.2-25219

Applicant: Computer manufacturer IPC:G06F15/62

[Claims]

A graphic segment manipulating method to manipulate, in an interactive drawing system and for a graphic having at least one vertex and a pair of segments defining said vertex; characterized in that an attribute allowing separation at the aforesaid vertex is assigned to the aforesaid vertex and one segment can be separated from another segment at the aforesaid vertex according to the aforesaid attribute when either one of the segments in the above pair is manipulated according to selection by the operator.

[Summary of the invention]

When editing or modifying a graphic (such as, for instance, a rectangle), the graphic is deformed by either linking each vertex of a pair of segments (as shown in Fig. 1) or separating each segment (as shown in Fig. 2). In this graphic segment manipulating method, when a graphic is deformed by separating segments at each vertex, an attribute allowing separation at each vertex (a command to separate segments when a graphic is deformed) is assigned to a selected vertex to achieve separation of segments and deformation of the graphic.

[Remarkable point]

This invention includes an interactive drawing system which can be regarded as a hardware configuration, and it may be said that the patented section is virtually a software program to manipulate the screen.

Fig. 1

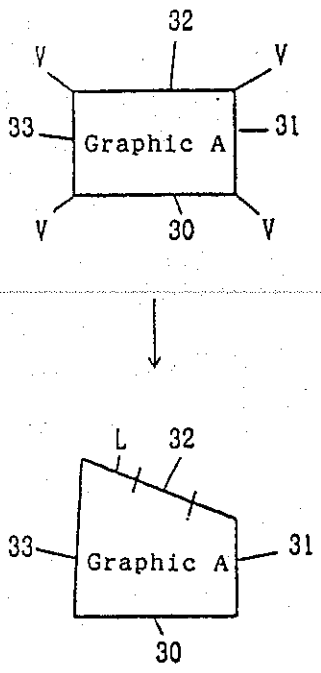
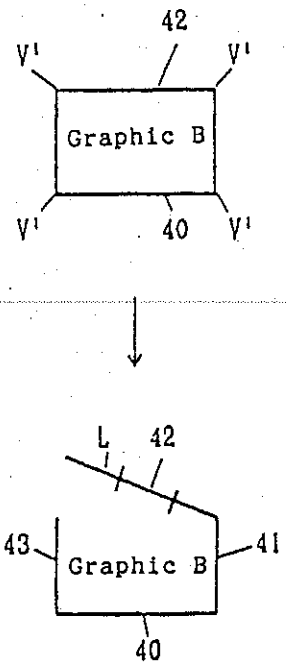


Fig. 2



Document B

Finance

[Finance - ATM]

"Transaction processing system" Pub.61-34184
Computer manufacturer (Applicant)
(A system which keeps user's operation valid, even if either one of card insertion or transaction type is selected first.)
"Cyclic deposit/payment system" Pub.61-48748
Computer manufacturer (Applicant)
A bill checking system to check bills and prevent payment of money type other than the specified one.
"Transaction processing system" Pub.1-39143 Computer manufacturer
A system to store customer information and save time and power required for processing lending or payment.
"Personal ID No. handling method" Pub.1-43343
Computer manufacturer
A method for maintaining security and handling personal ID numbers efficiently.
"Money accounting device" Pub.1-47815 Computer manufacturer
Simplification of operations for registration
"Banking work system for processing documents including data and the method" Pub.2-5100 Computer manufacturer
This system reads document (ex. a note) as image data, generates source data such as, for instance, qualified data, and carries out processing such as sorting.

[Finance - Credit]
"Automatic transaction processing system" Pub. 62-548
Computer manufacturer
A system to discover transaction with an illegal card as soon as possibly by differentiating regular cards from an irregular cards.
"Credit card verification system" Pub.62-11386
Computer manufacturer
A system to call a center after the code No. is verified and decide whether the transaction may be carried out or not depending on information from the center.
"Card processing system" Pub. 62-38750 Computer manufacturer
A system to check damaged cards and automatically reissue regular cards.
"Automatic transaction system" Pub.1-59615 Computer manufacturer
A system to reduce time for customers to finish transaction with a card.
"Bill drawing system using a credit card" Pub.1-1826
Computer manufacturer
A system to prevent malfunction of a bill drawing system.

[Finance - Transfer]
"Automatic transfer re-processing system" Pub.62-30699
Computer manufacturer
When a balance shortage is discovered in changing money from one account to another one, this system pends the transaction and re-process when a necessary amount of money is deposited.

[Finance - Interbank]
"Automatic money sending system" Pub.1-6501 Computer manufacturer
This system specified a destination for sending money and checks whether the destination account is the bank itself or in other bank for saving time and power required for the transaction.

[Finance-Slip edit/processing system]
"Slip editor" Pub.63-5509 Computer manufacturer
Serial numbers are entered in an item for input slip or input list, which makes it easy to search for any omission in data entry.

Distribution and management works

[Management works - Distribution of conference documents]
"Conference system" Pub. 63-65989
This system allows copying conference documents prepared by a management center or participants to a terminal for each individual to reduce work load for distribution of conference documents.

[Management works - Schedule management]
"Schedule management system" Pub. 63-12305 Computer manufacturer
This system registrates information on time and operations to be executed at the specified time, outputs the information according to the specified time or time information for efficient schedule management.

[Management works - Quality control]
"Beverage and food quality control system" Pub.63-61704 Computer manufacturer
This system stores information on a room No. of each refrigerator, storage period and column No. to dispose beverage and foods, storage period of which is over.

[Management works - Hotel room management]
"Hotel automation system" Pub.63-1636 User
This system supplies a user with a card which stores a room code. The user can lock/unlock a key for the room, which results in simplification of receptionists' work.

[Distribution management work - Smooth payment at restaurants]
"Price display system for each customer based on a computer" Pub.61-5189 User
This system displays a sum of money to be paid by each customer on a console and prevent troubles concerning price and fee.

[Distribution management works - Management of use of copiers and facsimile machines]
"Electric key card" Pub.61-10867 Computer manufacturer
This system processes information of quantity of oil supplied by a pump and transfers the data to a host control system.

[Management works]
"High speed ticket supplying system" Pub.62-52909
User, computer manufacturer
This system allows storage of frequently used data in local equipment for works to supply tickets at a higher speed.

[Distribution management works]
"Food supply management system" Pub. 1-1824 Computer manufacturer
This system makes it easier to modify contents of menu. This system allows reduction of master file capacity for menu.
"Food supply management system" Pub.1-1825 Computer manufacturer
This system simplifies entry of menu data.

[Management works -Library]
"Magazine management system" Pub. 1-22947 Computer manufacturer
This system compares data on arrived magazines with data on those which do not arrive yet, write the data on arrived magazines in a received magazine data memory and delete data of the magazines on not-received magazine data memory.

[Management works - Stock name display]
"Stock information list display system" Pub. 1-1823
Electronic device manufacturer
This system displays only the desired stock code and stock information.

[Management works - Slip preparation]
"Financial service/stock management system" Pub.1-23814 User
This system performs input of multiple types of management data in a unified format.

[Management works - Seat reservation]
"Reservation system" Pub.1-60867 Electronic equipment manufacturer
This system reads a reservation table on which labels displaying a reserved person and stores the data.

[Management works - Parking]
"Parking managing system" Pub. 2-19506
Electronic equipment manufacturer
An information transmitting unit is installed in a car, and charge is calculated by sensing the unit. This system also allows in-line connection to the bank account for automatic payment of parking fee.

[Management works - Market research]
"Market research data collecting method" Pub.2-41063
Computer user
This system collects data from an interactive terminal device for entry of market research data, transfer the data through a telephone line to a remote processor for data accumulation.

[Management work - Station window]
"Station work control system" Pub.61-29029
User and electronic equipment manufacturer
This system executes various types of works in a station through the distributed processing system.

Production and designing

[Production - Calorie calculation (Expert system)]
"Nutrition ingestion meter" Pub. 63-2346 Computer manufacturer
Data on calorie and component of each food is stored in this system, and the system calculates calorie and composition of each food to obtain deviation from a specified value to reduce work load.
"Nutrition ingestion meter" Pub. 63-22347 Computer manufacturer
This system provides analog display of nutrition balance so that the user can make up a menu easily.
"Nutrition ingestion meter" Pub. 1-49978 Computer manufacturer
This system reduces time required for calculation of nutrition values in food management

[Production - Packing]
"Interactive packing procedure decision system" Pub. 2-34065 Computer manufacturer
This system interactively computes combination of inter boxes according to dimensions of the outer box as well as to type and number of inner boxes.

[Production - Parts check]
"Duplicated parts checking/processing system" Pub. 2-53824 Computer manufacturer
This system can determine occupation by parts by checking form data on parts stored in the library depending on a number showing the parts type and checks for duplicates parts used in printed boards or other products.

[Production - Water distribution]
"Water distribution system designing support system" Pub. 2-746 User
This system displays height of land and dynamic water slope line by performing water control computation depending on conditional data.

[Production - Building construction]
"Steel frames building construction designing system" Pub. 2-30543 User
Design drawings and a component list are input to this system. A system for computing strength, tensile force and resistance of each component as well as for computing stress are arranged in a computer, and performs necessary checking. modification is performed depending on results of the checking.

[Production - Solid object recognition]
"Solid object view dictionary preparation system" Pub. 2-32669 Computer manufacturer
A solid object view dictionary preparation system to describe features of solid objects. By comparing features of an object visually recognized with the stored data, this system identifies the object. The views are defined as, for instance, a triangle pole having a triangle, a square, a triangle and a square sharing en edge, two squares sharing one edge, and so forth.

Clerical works for medical services

[Clerical works for medical services - Clinical record processing]
"Method for setting and displaying the number for patient"
Pub. 61-19066 Electronic equipment manufacturer
This system is used to display an ID number of each patient in each division, when a clinical record of the patient is presented, to check it.

[Clerical works for medial services - Calling system at a window of a pharmacy]
"Calling system" Pub. 61-122340 User
A system used at, for instance, a pharmacy to call patients when preparation is over.

[Clerical works for medical services]
"Receipt preparation device" Pub. 63-11713 Computer manufacturer
Serial numbers are printed on receipts so that the work to put receipts in the order of inssurant numbers will become easier.
"Data contents storage system in a calculator for medial insurance claim working" Pub. 1-45096 Computer manufacturer
This system allows easy preparation of receipt for different types of format.

[Clerical works for medical services - Drug preparation charging work]
"Item specification/retrieval system in a calculator for drug preparation charging works for medical insurance" Pub. 63-59191
Computer manufacturer
This system checks a date of birth for each patient to prevent patient data form being registered duplicatedly or a drug preparation charging slip from being issued duplicatedly.

[Clerical works for medical services - Heading data]
"Data storage system for calculators for clerical works for medical services" Pub. 1-17189 Computer manufacturer
This system manages heading data and clinical treatment data for each patient in batch.
"Data storage system for calculators for clerical works for drug preparation charging for insurance" Pub. 1-43341
Computer manufacturer

[Clerical works for medical services - Fee for specific technique]
"Specific technique charge automatic calculation system in a calculator for clerical works for medical services" Pub. 1-15106
Computer manufacturer
This system automatically calculates charge for specific techniques, each of which is restricted in times to be included for a charge for a patient.

[Clerical works for medical services - Control for sharing data]
"Data processing system for calculators for claiming work in hospitals and pharmacies" Pub. 2-741 Computer manufacturer
A data processing system which allows multiple hospitals or pharmacies to share data.

[Clerical works for medical services - Food service]

"Food service control system" Pub. 64-1824 Computer manufacturer
Computer system in which data of menu suited to the condition of a patient is made.

Betting

[Betting - Payment of a prize]
"Lottery ticket determination/payment system" Pub. 63-677704 Computer manufacturer
A system to determine whether each lottery ticket is a hit or a blank, and to prevent prepared money from being paid out by inhibiting payment to owners of lottery tickets in classes other than specified ones.
"Cash payment system in public-supported gambling games" Pub. 62-9951 Computer manufacturer
This system checks duplication in payment of cash, and allows payment to only people who pass the checking.

[Betting - Balloting system]
"Ballot ticket selling/collecting and repayment system" Pub. 61-5191 Electronic equipment manufacturer
This system allows online sale of ballot tickets and payment of dividend through bank online networks.
"Abnormal balloting detection system for a total data system" Pub. 1-8868 Computer manufacturer
This system detects an illegal race by analyzing timely and area concentration of hit tickets.
"Ballot processing system in public-supported gambling facilities" Pub. 1-42420 Electronic equipment manufacturer
Each voters carries a portable balloting machine, and a result of balloting is processed by a CPU.

[Betting - Ballot ticket management]
"Hit ballot ticket information processing system" Pub. 63-53582 Computer manufacturer
This system stores data on machines which paid dividend to each hit ticket, checks duplicated ticket numbers and prevents payment to illegal tickets.

[Betting - Bitting]
"Bitting system" Pub. 1-20784 Computer manufacturer
A bitting system which does not require complicated ten-key operations.

Others

"Logic simulation" Pub. 1-27459 Computer manufacturer
This system allows easy modification or expansion of an enterprise model.

(1) Title: Criteria for Determination of Inventive Step of Inventions Defined by Limitation with Numerical Values and Actual State of Practice

(2) Date: October 1991 (The 22nd General Assembly at Rochester)

(3) Source
(1) Source: PIPA
(2) Group: Japan
(3) Committee: 1

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(5) Keywords: Inventive step, invention defined by limitation with numerical values, critical significance, notability of advantageous effect, and technical problem

(6) Statutory: JPL 29 (2)

(7) Abstract: Inventions can be classified into several types on the basis of their relationship to the art known to the public, and there are many inventions which are seemingly novel in that they are completed formed by limitations with numerical values the constituent elements of a publicly known invention (the so-called "invention defined by limitations with numerical values).

This paper presents an introduction to the criteria for determination of the inventive step of inventions defined by limitation with numerical values as viewed in judicial precedents. This paper also gives a report on the results of inquiries made into the actual state of determinations of the inventive step of inventions defined by limitations with numerical values as observed in light of the judicial decisions made by the Tokyo High Court in the period from 1989 to 1990 on lawsuits instituted for the revocation of the trial decisions.

I. INTRODUCTION

It is not easy to make a proper determination of the inventive step of inventions. It is said that the majority (about two thirds) of the decisions for the final rejections intrials which are revoked by the Tokyo High Court are concerned with the lack of an inventive step given as the reason for the rejection.

In this regard, inventions can be classified into several types such as combinations of publicly known arts inventions defined by replacement or diversion of known elements, inventions defined by different or limited uses, and inventions with changes of or limitations in numerical values, shape, arrangement, material, and so forth. In the technical fields of chemistry and materials in particular, we find a large number of inventions which are newly completed by limiting with numerical values the constituent elements (namely, inventions defined by limitations with numerical values).

Inventions defined by limitations with numerical values include those inventions which in themselves, i.e. even without the limitations with numerical values, are novel inventions, and yet most of the inventions are those having novelty only in the limitations with numerical values and are consequently considered to be often liable to arguments regarding their inventive step in relation to the publicly known art.

On this ground, it is considered meaningful to indicate the criteria for the determination of inventive step in respect of inventions defined by limitations with numerical values and also to grasp the actual state of such practice.

II. CRITERIA FOR DETERMINATIONS OF INVENTIVE STEP IN INVENTIONS DEFINED BY LIMITATIONS WITH NUMERICAL VALUES

1. General Method of Making Determinations of the Inventive Step

In Japan, determination of the inventive step of an invention is made in the manner described below.

Whether a given invention has any inventive step involved

therein as compared with any publicly known invention is determined/on the basis of the constitution of the invention, namely, the ease or difficulty in adopting and combining the constituent elements of the invention. The reason is that the substance of the invention consists in nothing other than the constitution of the invention.

However, it is in many cases not easy to make a proper determination on the ease or difficulty in completing the constitution of an invention.

Therefore, it is the general practice to take into account non-predictability of the object (problem) of an invention and the notability of its advantageous effect and to make a determination on the basis of an integrated appraisal of those results on the occasion of a determination of an inventive step in an invention.

The lack of non-predictability in the problem to be solved by an invention indicates that the problem itself which the invention is intended to solve is solved by a publicly known invention or else that it is obvious, in view of the technical level in the art as at the time of filing of the application, that the solution of the technical problem should naturally be desired. On the contrary, non-predictability is recognized in the problem in the case where the technical problem is not yet solved by any publicly known invention, but is hard to predict in view of the technical level in the art as at the time of the filing.

Moreover, the notability of the advantageous effect of the invention means the notability achieved of the advantageous effect produced by the constitution of the particular invention, and the notability of the advantageous effect is not recognized in the invention in the case where the advantageous effect achieved by the selection and combination of the individual constituent elements of the invention remains within the range of the naturally predictable effect. On the contrary, notability of the advantageous effect of an invention is recognized in the case where the effect achieved by the selection and combination of the individual constituent elements of the invention exceed the range of the naturally predictable effect.

Furthermore, notability of the advantageous effect of an

invention should mean that the advantageous effect achieved by the invention is an effect of a type different from the effect achieved with any publicly known invention (including a case wherein the invention also has a homogeneous effect) or that there exists a so-called peak-like range, where an effect of the same type as but for more benefitial than the effect achieved with any publicly known invention is achieved.

Thus, generally speaking, a given invention has an inventive step involved therein, even without taking its technical problem or its advantageous effect into consideration, in the event that the difficulty in the constitution of the invention is clearly observed. In any case where it is hard to judge whether it is easy or difficult to complete the constitution of the invention, an inventive step is to be recognized in the invention, on condition of non-predictability in the technical problem, But in the case where the invention lacks in non-predictability of the technical problem, an inventive step is to be recognized, on the condition that the advantageous effect of the invention is notable.

2. Criteria for Examination in Respect of the Inventive Step in Inventions Defined by Limitations with Numerical Values

Some of the criteria for examinations for the individual industrial field present criteria for determination of the inventive step of inventions defined by limitations with numerical values.

According to those criteria, it is to be judged that " an inventive step cannot be recognized in any invention which has determined the optimum conditions for attaining the same object as that of a publicly known invention, within a range usually employed for the kind of operations, with respect to those conditions which are considered to be naturally taken into account in the performance of operations such as those for temperature, pressure, composition ratios, and so forth, even though such various conditions happen to be left out of the description in the publicly known invention" and that "an inventive step is to be found, in an invention with the composition, properties, conditions, and so forth being limited

to a specific range and having novelty only in that point, only in case the advantageous effect achieved in the specific the range are found to be considerably remarkable compared with the advantageous effect achieved at a range neighboring the specific range".

In other words, it may be said that "the inventive step of an invention defined by limitations with in numerical values is to be judged on the basis of the degree of the advantageous effect which can be obtained within the limited range of numerical values" in any case where the difficulty or ease in selecting a range of numerical values is not clear.

3. Criteria for Determination of the Inventive Step of Inventions Defined by Limitations with in Numerical Values and Processing of Such Determinations in Actual Practice

As it is judged from the criteria for examination and the judicial precedents, a determination of an inventive step in an invention defined by limitations with numerical values is made in the manner shown below (Table 1).

3.1. Case of inventions in which the inventions themselves without limitations with numerical values constitute novel inventions (Case A)

Even without any inquiry made into the technical significance of limitations with numerical values, it is to be recognized that these inventions have an inventive step in them.

(The expression, "the technical significance of limitations with numerical values", means a technical reason why a specific range of numerical values has been selected.)

As such inventions, there can be mentioned an invention in which a constituent element, for example, has been added afresh to a publicly known invention and further some limitations with numerical values have been incorporated with such a constituent element.

Since such an invention is already to be distinguished from any publicly known invention in the point that a novel constituent element different from any publicly known constituent

elements has now been added (that is, such an invention has novelty and inventive step), it is not necessarily essential to incorporate any limitation with numerical value with any such novel constituent element, and a limitation with numerical values in such a case is nothing more than a supplementary or secondary matter.

The limitations with numerical values as used in inventions like these do not need to have any critical significance because it is possible to establish a range of numerical values within the scope of the experiments which have been carried out and to exclude the numerical values in the proximities of the upper and lower limits practicable for economic reasons.

3.2. Case of inventions in which novelty is present only in the limitations with numerical values

The inventions of this kind can further be divided between those inventions which are constituted by giving limitations with specific numerical values to publicly known inventions which have not indicated any specific numerical values and those inventions which are constituted by assigning limitations with numerical values different from the range of numerical values already specified for publicly known inventions.

3.2.1. Inventions constituted by assigning limitations with specific numerical values to publicly known inventions which do not indicate any specific numerical values (including those inventions which assign those limitations with numerical values which overlap with or are included in a range of numerical values established in publicly known art)

(1) The case in which difficulty is obviously involved in establishing limitations with numerical values (Case B)

In the case where it is obvious that it is difficult for a person having ordinary skill in the art to select the range of numerical values set up for limitations, the difficulty involved in the constitution of the invention is evident, and an inventive

step is therefore recognized in the invention, even without any inquiry made into the difference or identicalness of the technical problem or the presence or absence of critical significance.

For example, it is found that difficulty is involved in the constitution of an invention where there are a large number of constituent elements with limitations set up in numerical values and a notable advantageous effect is achieved only with a combination of these specified constituent elements.

(2) Case in which it is obvious that difficulty is not involved in setting up limitations with numerical values (Case C and Case D)

In the case where the range of numerical values set up for the limitations is nothing more than what a person having ordinary skill in the art can usually select at his discretion, it can be recognized that the literature describing the publicly known invention has merely omitted the description of numerical values. It is therefore obvious that difficulty is not involved in the constitution of the invention. Accordingly, any inventive step is not recognized in the invention even if the advantageous effect obtained by the invention is notable - not to speak of a case which cannot attain any notable advantageous effect (Case C).

Moreover, in the case of inventions like these, it is possible also to deny novelty on the ground that such inventions have merely confirmed the advantageous effect of publicly known inventions (Case D).

(3) Case in which it is difficult to determine the difficulty or ease in the limitation with numerical values (Case E and Case F)

In these cases, the inventive step is judged on the basis of the notability of an advantageous effect resulting from the selection of a range of numerical values.

In these inventions, it is necessary to find a critical significance in order to demonstrate that a notable advantageous effect can be achieved only with the selected limitations with numerical values, regardless of the difference or identicalness of the technical problem. It is found that an inventive step is recognized in a case in which there is a critical significance in

the limitations with numerical values (Case E) but that inventive step is not recognized in a case in which no such critical significance is found to exist (Case F).
(The term, "critical significance", indicates the meaning which the boundary point (critical point) in the range of numerical values has, and the numerical values to be taken up as the objects of comparison are in the proximity of the critical point.)

3.2.2. Inventions with limitations with numerical values different from the range of numerical values set up for publicly known inventions

(1) Case in which it is obvious that there is difficulty in setting up limitations with numerical values (Case G)

In case it is obvious that it is difficult for any person having ordinary skill in the art to select any limited range of numerical values, difficulty in the constitution of an invention is evident. Therefore, an inventive step is recognized in such an invention even without any inquiry made into the difference or identicalness of the technical problem or into the presence or absence of a critical significance.

For example, it may be said that it is difficult to select a range of numerical values in the case where the specified range of numerical values is beyond the existing technical common sense, and it is therefore recognized that there is an inventive step in the particular invention. In this case, it is not necessarily required to find any special critical significance because it is clear that it is not easy to set up limitations with a range of numerical values.

(2) Case in which it is obvious that there is no difficulty in setting up limitations with numerical values (Case H)

Even if a specified range of numerical values is different from that of a publicly known art, any inventive step is not recognized in the invention because it is obvious that the constitution of the invention does not involve any inventive step as long as the specified range of numerical values is nothing more than what any person having ordinary skill in the art can

select at his discretion.

(3) Case in which it is difficult to judge the difficulty or ease in setting up limitations with numerical values (Case I, Case J, and Case K)

In such a case as these, patentability is judged in view of the notability of an advantageous effect achieved by the selection of a range of numerical values.

(1) Case in which the technical problem (the object of the invention) is different from that of a publicly known invention (Case I)

In the case where an invention filed has any object which is clearly different from that of any publicly known invention and a notable advantageous effect by virtue of a selection of a range of numerical values, the invention filed has an inventive step just for that reason. Therefore, it is not necessary to find any critical significance for the limitations with numerical values.

For the point whether or not a notable advantageous effect is achieved, it is required that it has been ascertained or else at least has reasonably been inferred that a notable advantageous effect is achieved in the entire range limited with numerical values. In the case there is any part in which a notable advantageous effect is achieved and any other part in which no such notable advantageous effect is produced within the range in which limitations are set up in numerical values, any invention which has set up limitations with numerical values inclusive of both of these parts in one range should be found to be an invention not having any inventive step as a whole, as long as it is left as it is, for the reason that it contains a part lacking an inventive step.

(2) Case in which the technical problem (the object of the invention) is in common with that of any publicly known invention (Case J and Case K)

In order to have inventive step recognized in the case of an invention of this type, it is considered to be insufficient that the advantageous effect is merely notable, but it is found necessary that the invention has a critical significance (Case J). On the contrary, where an invention of this type does not have any critical significance, any inventive step is not recognized in the invention (Case K).

For the implementation of a publicly known invention, it is, of course, necessary to give an appropriate numerical value to each of the constituent elements as seen from the viewpoint of its design. However, it is to be considered that the manner how to set up such numerical values is usually nothing more than a matter which a person having ordinary skill in the art can select as appropriate at his discretion on the basis of the technical common sense which he has acquired or by repetitions of routine experiments conducted when there is any necessity for it. Moreover, even if there occur some differences in terms of advantageous effect as compared with a publicly known invention as the result of limitations with numerical values, such differences are merely those of degree, which remain, so to speak, within the range of natural progress in technology.

III. ACTUAL STATE OF DETERMINATION OF THE INVENTIVE STEP IN INVENTIONS WITH LIMITATIONS WITH NUMERICAL VALUES

The present writers have examined the particulars of the judicial decisions on cases relating to inventions with limitations with numerical values out of a total of 283 cases (consisting of 199 cases relating to patents and 84 cases relating to utility models) which were picked up in an article published in the journal, Tokkyo-to-kigyo (Patent and Business Firms), out of the court decisions made in the period from January 1989 to December 1990 with respect to lawsuits instituted for revocation of trial decisions.

1. Number of Cases

The collected cases relating to inventions defined by limitations with numerical values add up to a total of 36 cases (of which three cases are cases in which the prior art cited in trial decisions are not relevant and two cases are cases in which the subject of limitations with numerical values does not form a point at issue). Thus, the inquiries described below have been made with respect to the remaining 31 cases.

The breakdown of the thirty-one cases collected for this study is as shown in the following:

Cases in which inventive step has been affirmed ... 10
Cases in which inventive step has been denied ... 21

2. Reasons for decisions on inventive step

(1) The reasons for determination of inventive step with respect to the thirty-one cases mentioned above are classified as shown in Table 2 in accordance with the criteria for determination (II) described above.

(2) On the basis of the results presented in Table 2, the following facts can be pointed out.

(1) There is no instance of an invention which is novel in itself without limitations with numerical values (Case A).

(2) Of the inventions which have invention step only in the

part of the limitations with numerical values, those inventions which have a range of numerical values overlapping with or included in the range of numerical values disclosed in the publicly known inventions have added up to a total of 24 cases.

(i) Of these, three cases have been judged to have inventive step since difficulty in constitution has been recognized in the combination of a plural number of sets of limiting numerical values (Case B).

(ii) Then, three other cases have been judged to have inventive step since the notability of its advantageous effect has been recognized because the limited range of numerical values in them has a critical significance (Case E).

(iii) However, those cases in which critical significance has not been recognized and therefore the notability of advantageous effect has not been recognized have added up to a total as large as 16 cases (Case F).

(iv) Moreover, there are two cases in which novelty has been denied (Case D).

(3) Of those inventions which have novelty only in limitations with numerical values, seven cases in total have any range of limiting numerical values different from the range of numerical values disclosed in the publicly known inventions.

(i) Of these, those inventions which have been recognized to have inventive step for the reason that the technical problem is different from that of the publicly known invention totaled four cases (Case I).

(ii) Three cases of inventions have been found to have no inventive step because they have the same technical problem as the publicly known inventions and have not been recognized to have any critical significance in the limitations with numerical values (Case K).

3. Summary Description of Typical Cases from Cases Mentioned Above

3.1. Cases in which inventive step has been affirmed

3.1.1. Case of an invention recognized to have inventive step with technical significance recognized on the ground of the presence of a critical significance in the limitations with numerical values although the invention has a range of numerical values in overlapping with the publicly known art (Case E)
Court Decision on January 26, 1989 on Case (Administrative lawsuit-Ke) No. 149/1975 (Showa 50) (Case on Manufacturing Method for Nickel-Based Cast Alloy and Cast Alloy Containing Said Nickel-Based Alloy)

(1) Conclusion
Revocation of the Final Rejection in the Trial

(2) The Present Invention / Cited Reference
(1) Gist of the present invention
"A nickel-based alloy for use under stress at a temperature up to approximately 1,038 ^{o}C in its composition consisting of, in percent by weight, 7 % to 13 % chromium, up to 35 % cobalt, up to 8 % molybdenum, up to 14 % tungsten, and less than 6 % tantalum, (the maximum of the total quantity of tungsten, molybdenum, and tantalum should be 14 %), 4 % to 7 % aluminum, 0.5 % to 6 % titanium (the minimum of the total quantity of aluminum and titanium should be 6.2 %), up to 3 % columbium, up to 1.5 % vanadium, up to 0.02 % boron, up to 0.2 % zirconium, 0.02 % to 0.2% carbon, 0.7 % to 4 % hafnium, respectively, with the balance being essentially nickel together with very minute quantity of impurities, and nickel being present in at least 35 % and the hafnium content being such an amount to improve the ductility of the cast alloy within the range from 0.7 % to 4 % at the room temperature, and a gamma initial phase and a eutectoid gamma initial phase in its state as cast, the effect of hafnium contained in the alloy being its improved ductility under the temperature in the range from approximately 704 ^{o}C to 871 ^{o}C in its state as solidified after its casting and also showing an improved antecedent creep percent under the stress at 760 ^{o}C based on test samples obtained by machine processing from the

cast alloy in comparison with the alloy not containing any hafnium but composed in the same manner."

(2) Comparison with cited reference (Table 3)

(3) Point at issue

Presence or absence of technical significance in the selection of Hafnium out of a plural number of discretionary constituents listed comprehensively in the publicly known prior art (namely, Mo, W, Nb, Ta, V, B, Zr, Be, and Hf) and the limitation of the range of the composition ratio of the substance within a range in overlapping with that of the publicly known prior art mentioned above.

(4) Essential point of the trial decision

(1) The present invention and the cited prior invention have their constituents and the range of their constituents in overlapping or in agreement to some extent, and the compositions of the two alloys are essentially not different from each other.

(2) As regards the properties and use of the alloys, both the alloys are in agreement in the point that both of them are anti-creep heat-resistant alloys used as a material for a component part exposed to stress under high temperature in such apparatuses as a gas turbine.

(3) The point of difference between the two inventions consists in that the present invention contains Hafnium as an indispensable constituent and achieves an improvement on the ductility of the alloy at the room temperature and in the range of temperature from approximately 704 ^{o}C to 871 ^{o}C, but that the cited reference does not contain any description to the these effects.

(4) The cited reference contains a description of data obtained by tests on the ductility and strength of the nickel-based alloy and its anti-creep property

under high temperature, and, in light of these data, it is to be considered that also the nickel-based alloy described in the cited reference should have good ductility and high strength under high temperature, and, now that the compositions of the two alloys will be in agreement when the alloy in the cited reference contains Hafnium in an identical atio as proposed in the present invention, it is considered that the alloy as described in the cited reference also have these properties of the nickel-based alloy disclosed in the present invention, and it is therefore found that there is not any notable difference between the two.

(5) Judicial decision

(1) The object of in the present invention is to improve the ductility of the alloy and to improve the anti-creep property of the alloy at the intermediate temperature (in the temperature range approximately from 704 ^{o}C to 871^{o}C) by the use of Hafnium added in a ratio ranging from 0.7 % to 4 %.

(2) In the cited reference, on the other hand, Hafnium is a discretionary constituent meant to be a hardening element, and the cited reference does not give any description or suggestion of the property for improving the ductility of the alloy at the intermediate temperature as revealed in the present invention.

(3) Of the data described in the cited reference, the temperature conditions set up at the time of the measurements are not stated with respect to the measurements of ductility, tensile strength, and impact resistance, and, consequently, it cannot be aid that the tests in the cited reference disclose any measurement of these items at the intermediate temperature, at which the present invention intends to improve these properties of the alloy.

(6) Comments

(1) The present invention is different in technical

concept from the cited reference, and the judicial decision is therefore considered to be appropriate.

(2) Comparison with the corresponding application for a U.S. patent.

In the process of the examination for a U.S. patent under CIP applications for the present invention and other applications, the same prior art as that cited in Japan is cited. It appears that the product claims are somewhat narrower than those in the corresponding applications filed in Japan. The reason or the like for this is not known.

3.1.2. Case of an invention found to have inventive step on the ground that both the range of numerical values and the technical problem to be solved are different from those in the publicly known art (Case I)

Court Decision on December 30, 1989 on Case (Administrative lawsuit-Ke) , No. 36/1988 (Showa 63) (Case on Packaged Object with Favorable Sealing Property)

"The present invention has the important task of achieving such film characteristics as are capable of dealing properly with high-speed automatic packaging through improvement of the various properties of film, including its tackiness, heat plate releasing performance, and automatic feeding performance and has successfully realized its unique advantageous effects in respect of the low temperature sealing and slipping characteristics of the relevant film and the absence of liability to fused adhesion at the time of the manufacture of the film (consecutive double-shaft drawing), overcoming such disadvantages of the film as its inferior slipping, its fused adhesion to the heating and extending rolls, and its inferior transparency, by using butene, in the ratio of 99 to 60 weight % in the second component for the heat seal layer.

"In contrast to this, the invention in the cited reference has the object of lowering the temperature at which heat sealing can be performed, and also providing an extended range of temperature suitable for heat sealing, in addition to maintaining a certain level of heat sealing strength, and, although the cited invention gives an example of a generally marketed product

utterly different in terms of the composition ratio in the second component from that specified in the present invention the cited invention does not contain any description concerning the technical significance in respect of the use of the constituent in that ratio and does not contain any statement or any suggestion at all regarding the influence or advantageous effect that such a change in its ratio will give to the film.

"Accordingly, it should be stated that the invention described in the cited reference does not have any technical idea marked by attention paid to the composition ratio in the second component and an attempt at limiting its composition ratio to a certain range for the purpose of achieving the desired characteristics, as is the case with the present invention."

3.1.3. Case of an invention found to have inventive step owing to a plural number of limitations with numerical values even though the range of numerical values are in overlapping with that of publicly known art (Case B)

Court Decision on July 26, 1990 on Case (Administrative lawsuit-Ke) . . No. 262/1988 (Showa 63) (Case on High Yield Pulp Content Electronic Photographic Transfer Paper)

"The present invention marks a success in furnishing medium-quality paper with characteristics suitable for use as electronic photographic transfer paper by limiting to a specific range the moisture content and surface electrical resistance value of medium-quality paper, which has not been used for electronic photographic transfer paper in the past.

"In contrast with this, it is clear that the cited reference 1 merely discloses the point that the moisture content of paper at the stage where the paper has come out of the paper making machine is sometimes set at a ratio somewhat lower than the moisture content in equilibrium with the environmental humidity from the viewpoint of ease in performing the operations in the paper-making process in general and that the cited reference 2 merely indicates the point in general terms that the moisture content in the final process for the manufacture of paper is in the range from 5 % to 5.5 %, and yet these descriptions do not suggest any task consisting in furnishing the medium-quality

paper in the present invention with any suitable properties for its use as electronic photographic transfer paper or any specific constitution relating to the moisture content.

"Moreover, even though the well-known reference 1 teaches inclusion of an electric conductive agent in electronic photographic transfer paper and a decline which the electric conductive agent causes in the surface electric resistance value, the addition of the electric conductive agent in the present invention has come to be required solely in consequence of a decrease of the moisture content of the medium-quality paper.

"Furthermore, according to the description in the Specification for the present invention, it is evident that the two constituent elements, namely, the moisture content and the surface electric resistance value, work together to achieve the advantageous effect expected of the present invention."

3.2. Cases in which inventive step has been denied

3.2.1. Case of an invention in which inventive step has been denied on the ground that the problem to be solved is the same though the range of numerical values is different from that of the public known art and that critical significance is not recognized in the limitations with numerical values (Case K) Court Decision on May 30, 1989 on Case (Administrative lawsuit-Ke) No. 231/1987 (Showa 62) (Case on Titanium Alloy and Its Manufacturing Method)

(1) Conclusion

Affirmation of the Final Rejection in the Trial

(2) The present invention / cited reference

(1) Gist of the present invention

"A heat-resistant and stress-resistant alloy consisting of 5.4 % to 5.5 % aluminum, 2.5 % to 3.5 % tin, 3 % zirconium, 1 % niobium, 0.25 % to 0.3 % molybdenum, 0.3 % silicon, and balance titanium".

(2) Comparison with cited reference (Table 4 and Fig. 1)

(3) Point at issue

Technical significance in having selected Mo and Nb out of

the optional constituents (Mo, Nb, Ta, V, and W) collectively described in the cited reference and having limited the content of the constituents to a range different from that described in the cited reference.

(4) Essential point of the trial decision

(1) While the cited reference specifies Mo, Nb, and so forth grouped together as stabilizing elements and requires that one or more kinds of the elements in the group should be used in a total quantity in the range from 0.1% to 1.2 % of the total quantity, the present invention, as amended after the publication of the application, the ranges of the composition ratios of the constituents have been reduced to 1 % of Nb and 0.25 % to 0.30 % of Mo, their total quantity being in the range from 1.25 % to 1.30, and thus the present invention is different from the cited reference in the point that the specified ranges of these constituents are outside of the ranges of the upper limit values specified in the cited reference.

(2) The cited reference states that "the addition of Mo in the ratio of approximately 0.4 % will be sufficient for an improvement on the creep strength", and when this statement is taken into consideration together with the point that the lower limit of the composition of the stabilizing elements such as Mo and Nb is 0.1 %, it can be recognized that the description in the cited reference suggests that the addition of Mo in a ratio in the proximity of 0.4 % (including a ratio less than hat) is effective for an improvement of the creep strength. It is easy to limit the quantities of Mo and Nb on the basis of these descriptions.

(5) Judicial decision

(1) The cited reference suggests that an improvement will be made on the creep strength even with the addition of Mo in a ratio less than 0.4 %.

(2) The cited reference suggests that an improvement will be made on the creep strength of the Ti alloy with the composite addition of Mo and Nb.

On the other hand, the present invention proposes a composite addition of Mo and Nb, but it cannot be recognized that the proposed in the present invention produces any special effect as compared with that of the cited reference.

(6) Comments

(1) Since the applicant made reference only to the composition ratios, Mo accounting for 0.8 % and Nb accounting for 1.3 %, which are found in one example of embodiments in the prior art which he cited as reference in the original Specification and then took the difference from the composition ratios in the cited reference as the basis for inventive step, the judicial decision rejected the plaintiff's appeal on the basis of the overall description of the cited reference.

(2) Comparison with corresponding application for a U.S. patent

The same prior art has been cited in the course of the examination procedures with respect to the present invention and the corresponding application for a U.S. patent. The U.S. patent has been registered with "product by process" claims. Although the present invention consisted of product claims and process claims at the stage of its publication, the claims were restricted only to the product claims on the occasion of a response to an opposition raised against the application. If the dispute had been carried on with the process claims kept intact, it would have been possible that the case might have produced a different result.

3.2.2. Case in which inventive step has not been recognized on the ground that the range of limitations with numerical values is in overlapping with that of the publicly known art and also that the advantageous effect of the invention does not have any notability (Case F)

Court Decision on November 28, 1989 on Case (Administrative

lawsuit-Ke) No. 243/1987 (Showa 62) (Case on Fluid Power Equipment)

The invention described in the cited reference 1 and the present invention are in their agreement in the point that they are provided with all the other parts of constitution excluding "the ratio of the bladeless passage", but these inventions are different in the point that the present invention places the restriction that "the impeller and so forth are caused to rotate in the ratio of 50 % to 95 % of the troidal space" while the cited reference 1 does not contain any such restriction.

However, the Specification for the present invention does not contain any description at all with respect to the technical significance of the adoption of the limitations with numerical values for the ratio of the bladeless passage, which marks a point of difference as mentioned above, or with respect to the advantageous effect thereby produced.

It is obvious from the constitution of the present invention as seen from a technical viewpoint that the advantageous effect of the present invention are produced by a constitution used in common in present invention and the cited reference 1 and that the advantageous effect can therefore be achieved also by the invention described in the cited reference 1.

On the other hand, the invention described in the cited reference 2 is provided with a constitution similar to the difference between the present invention and the invention in the cited reference 1. Although the cited reference 2 does not contain any concrete description with regard to the ratio of the bladeless passage, Fig. 1 in the cited reference 2 clearly indicates a constitution in which the ratio which the bladeless passage mentioned above occupies in the troidal space is 50 %.

Accordingly, it should be stated that a person having ordinary skill in the art could have easily done such a task as restricting the ratio of the bladeless passage to the numerical values indicated for the present invention by application of the invention described in the cited reference 2 to the invention described in the cited reference 1 which is provided with all the parts of the constitution to the exclusion of the ratio of the bladeless passage.

IV. CONCLUSION

1. Ratio of Cases with Trial Decisions Revoked by Court

(1) Of the thirty-one cases under the present study, thirty cases are related to appeals for the revocation of final rejections in trials. The cases in which the trial decisions have been revoked have totaled ten cases while those cases in which the trial decisions have been maintained have added up to a total of twenty cases. This ratio is approximately equal to 53 / 108, which is the ratio of the allowed appeals (namely, the revocation of the trial decision) and the rejected appeals (namely, the affirmation of the trial decision) out of the total of the decisions at the trials made in 1990 in protest against final rejections (for patents and utility models).

2. Discussion Concerning Reasons for Decisions on Presence of the Inventive Step

(1) Case B

Of the ten cases in which the trial decision have been revoked by court decisions, three cases come under this case category.

In view of the fact that there are as many as three cases in which the difficulty of constitution is finally recognized in a decision in lawsuits for the revocation of the trial decision, though denied in the patent examination and appeal procedure, it may be stated that it is not easy to have the difficulty of constitution recognized even in respect of an invention constituted by combining a plural number of limitations with numerical values.

Moreover, considering that all these cases were different in technical problems from that of the publicly known art, it is considered more difficult to have the difficulty of constitution of an invention recognized in a case where the technical problem of the invention is the same as that of the publicly known art.

(2) Case E and Case F

In these cases the inventive step is judged depending on the presence or absence of the critical significance of the invention.

Of the ten cases in which the trial decision have been revoked by the court decision, there are three cases which come under the case category E, and all these cases have technical problems different from that of the publicly known art.

On the other hand, the ratio of the cases which come under the category of Case F are 16 / 31, which is in excess of one half of the number of the total cases, and fifteen cases out of the sixteen cases have technical problems identical to those of the publicly known art, and the other one case has been found to be easy for its diverted use in another technical field.

The ratio of the numbers of cases which come under the categories, Case E and Case F, respectively is 3 / 16, and, thus, the cases in which a critical significance is recognized are far fewer than those cases in which a critical significance is not recognized. Yet, this ratio is also that of the cases in which the technical problem is the same to those in which the technical problem is different with respect to the cases in which a critical significance has been recognized.

This may be considered to indicate that it is very difficult to have any critical significance recognized in the case where the technical problem is the same in the case of an invention defined by limitations with numerical values having any range of numerical values in overlapping with that of the publicly known art.

(3) Case I

Although it is considered in respect of this category of cases that there will essentially be no dispute regarding the invention step on condition that the technical problem of the invention is different from that of the prior art, but, in actual practice, the difference in the technical problem has been denied in the trial decision but recognized in lawsuits for the revocation of the decision with respect to four cases and, as the result of this change in recognition, the inventive step has been recognized in those cases.

Judging from these points, it may be said that, even if it is argued that the invention has a somewhat different type of effect, it is highly likely to be recognized that such an effect is one which is naturally achievable also with the publicly known invention, as determination of the difference or identicalness of

technical problems are rigorous (namely, wider in the range of the identicalness of a technical problem) in examinations and trials and that, on the contrary, the differences between the technical problems are easier to be recognized in the court.

(4) Case J and Case K

All the three cases of inventions with an attempt at solving the technical problem as that of a publicly known invention by establishing a range of numerical values different from that in the publicly known invention have been denied their inventive step on the ground that the limitations with numerical values do not have any critical significance. Even though the invention has a range of numerical values different from that of the publicly known invention, it is found in these cases that it is not easy to achieve a notable advantageous effect in comparison with that of the publicly known invention.

(5) Case A and Case G

No case has been found to be in the case category of Case A or G. It is unknown whether no invention in these category was filed or the inventive step was not denied in the examination on the trials.

(6) Case C, Case D and 40 Case H

Two cases have been found to come under the category, Case D, but no case has been found to be in the case category of Case C or Case H. It is unknown whether no invention in these category was filed or an applicant did not institute a suit for the revocation of a final rejection in a trial.

3. Matters Requiring Attention in Dealing with Application and Examination of Invention Defined by Limitations with Numerical Values

In light of the cases described above, it can be pointed out that the following points require attention in dealing with the application and examination of inventions defined by limitations

with numerical values.

(1) In the case of inventions having any range of numerical values overlapping with or inclusive of that of any publicly known invention, it is considered that inventive step will be recognized only in the case where a difference can be found in the effect of the invention from that of the publicly known invention only by a combination of plurality of ranges of limitations with numerical values (Case B) or in the case where a clear critical significance can be recognized in the limitations with numerical values (Case E).

Accordingly, in the case of such inventions as these, it is necessary to take into consideration even at the time when an application is filed how to deal properly with reasons for rejection. In specific terms, it is absolutely necessary to define a range which can be recognized to mark a sufficient difference (i.e. critical significance) from the prior art. In addition, it is necessary to define the range of those elements of the invention which are likely to become the consitutuent elements of the invention in the future (in the process of examination) and to state the reasons for the limitations, and clearly to describe the advantageous effect attending such limitations. The reason for this recommendation is that, with the addition of such limitations, there is possibility in gaining a recognition of the difficulty in finding the combination of the limitations with numerical values.

It is considered to be very difficult to gain any recognition of critical significance and accordingly any of inventive step in case the technical problem is the same for the invention and the prior art in the case of an invention which has a range of numerical values overlapping with or inclusive of that of a publicly known invention.

(2) Also in the case of an invention which solves any technical problem which the applicant considers to be different from that of any publicly known invention by applying a range of numerical values different from that of the publicly known invention (Case I), the difference in the technical problem will not easily be recognized in the patent examination and appeal procedures and it can not therefore be certain that the inventive step of the

invention will be easily recognized.

An effective means of dealing with this is considered to be demonstrating that the present is clearly different in the technical problem from the publicly known art.

Moreover, it is necessary to pay prudent attention to the description in the Specification at the time when an application is filed, so that a critical significance can be recognized in the limitations with numerical values (i.e. the invention comes under the category of Case J) in case the difference in the technical problem cannot be recognized.

(3) In the case of an invention which solves the same technical problem as that of a publicly known invention with a range of numerical values different from that of the publicly known invention, it is very important that the range of numerical values is considerably remote from the range of numerical values shown in the publicly known invention and additionally that there is a clear critical significance in the range of numerical values.

The reason for the point mentioned above is that the reason for rejection given in the process of the patent examination is in many cases that the advantageous effect of the invention does not have any notability as the range of numerical values of the invention is overlapping with or considerably similar to that of the publicly known invention.

In order to avoid this reason for rejection by a reduction of the claims for a patent, it is necessary to grasp the exact range of numerical values having a clear critical significance when the application is filed. Furthermore, it is necessary also to pay attention to the numerical values set forth in the examples of embodiments, so that it is possible to insist on the clear critical significance of the numerical values.

(4) There has been a case in which inventive step has been denied for the invention as a whole since the invention does not have any notability in the range of numerical values with the exception of a part of the limited range of numerical values in which notability can be recognized in the advantageous effect of the invention in comparison with that of the publicly known art (This point is clearly stated in the judgment paper).

This fact indicates that it is important to make an

appropriate reduction of the claims by thorough inquiries made into the matters stated in the Specification on the occasion a response is to be made to any reason for rejection in the process of the examination. The reason for this point is that, with such a step, there is some possibility that a critical significance is recognized in the limitations with numerical values.

V. REFERENCES

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Table 1: Determination of the Inventive Step in Inventions Limited with Numerical Values

Inventions Novel in Themselves without Limitation with Numerical Values				Case Category
			Inventive step affirmed	
Inventions with Novelty Only in Limitation with Numerical Values				
Range of Limitation with Numerical Values				
Difficulty or ease in selection of range of numerical values	Difference or identicalness of technical problem	Critical significance	Inventive step	
Overlapping with or inclusion in publicly known invention				
Difficult	Different/Identical	(No inquiry)	Affirmed	B
Easy	Different/Identical	(No inquiry)	Denied	C
			Novelty denied	D
Difficult to decide	Different/Identical	Present	Affirmed	E
		Absent	Denied	F
Different from publicly known invention				
Difficult	Different/Identical	(No inquiry)	Affirmed	G
Easy	Different/Identical	(No inquiry)	Denied	H
Difficult to decide	Different	(No inquiry)	Affirmed	I
	Identical	Present	Affirmed	J
		Absent	Denied	K

* "No inquiry" means that it is not necessary to make any inquiry into the item concerned.

Table 2: Reason for the Determination of the Inventive Step and Number of Cases Concerned

Inventions Novel in Themselves without Parts Limitation with Numerical Values				Case Category	Number of Cases
		Inventive step affirmed		A	0
Inventions with Novelty Only in Limitation with Numerical Values					
Range of Limitations with Numerical Values					
Difficulty or case in selection of range of numerical values	Difference or identicalness of technical problem	Critical significance	Inventive step		
Overlapping with or inclusion in publicly known invention					
Difficult	Different	(No inquiry)	Affirmed	B	3
	Identical	(No inquiry)	Affirmed	B	0
Easy	Different/Identical	(No inquiry)	Denied	C	0
	Identical	Novelty	denied	D	2
Difficult	Different	Present	Affirmed	E	3
		Absent	Denied	F	0
	Identical	Present	Affirmed	E	0
		Absent	Denied	F	16
Different from publicly known invention					
Difficult	Different/Identical	(No inquiry)	Affirmed	G	0
Easy	Different/Identical	(No inquiry)	Denied	H	0
Difficult to decide	Different	(No inquiry)	Affirmed	I	4
	Identical	Present	Affirmed	J	0
		Absent	Denied	K	3

Table 3: Comparison of Composition Range with cited reference

Constituent	Composition Range in Present Invention	Composition Range in Cited reference Example of Embodiment		Comparison with Cited Example (*)
Ni	36 ≦	35 ≦	Remainder	◎
Al	4 - 7	0.1 - 9.0	5.0	◎
	6.2 ≦	5.0 ≦		◎
Ti	0.5 - 6	0.1 - 6.5	4.0	◎
Co	- 35	0 - 30	15.0	◎
Cr	7 - 13	5 - 30	15.0	◎
Mo	- 8	1.0 - 15	4.0	◎
W	- 14 ≦ 14	0 - 15	Optional constituents to be added to Mo	○ ○
Ta	≦ 6	0 - 15		○
Nb	- 3	0 - 7		○ **
V	- 1.5	0 - 6		○
B	- 0.02	0 - 0.3	0.015	○
Zr	- 0.2	0 - 1.2	0.2	○
Be		0 - 0.5		
Hf	0.7 - 4	0 - 8		○
C	0.02 - 0.2	0.01 - 0.3	0.18	◎

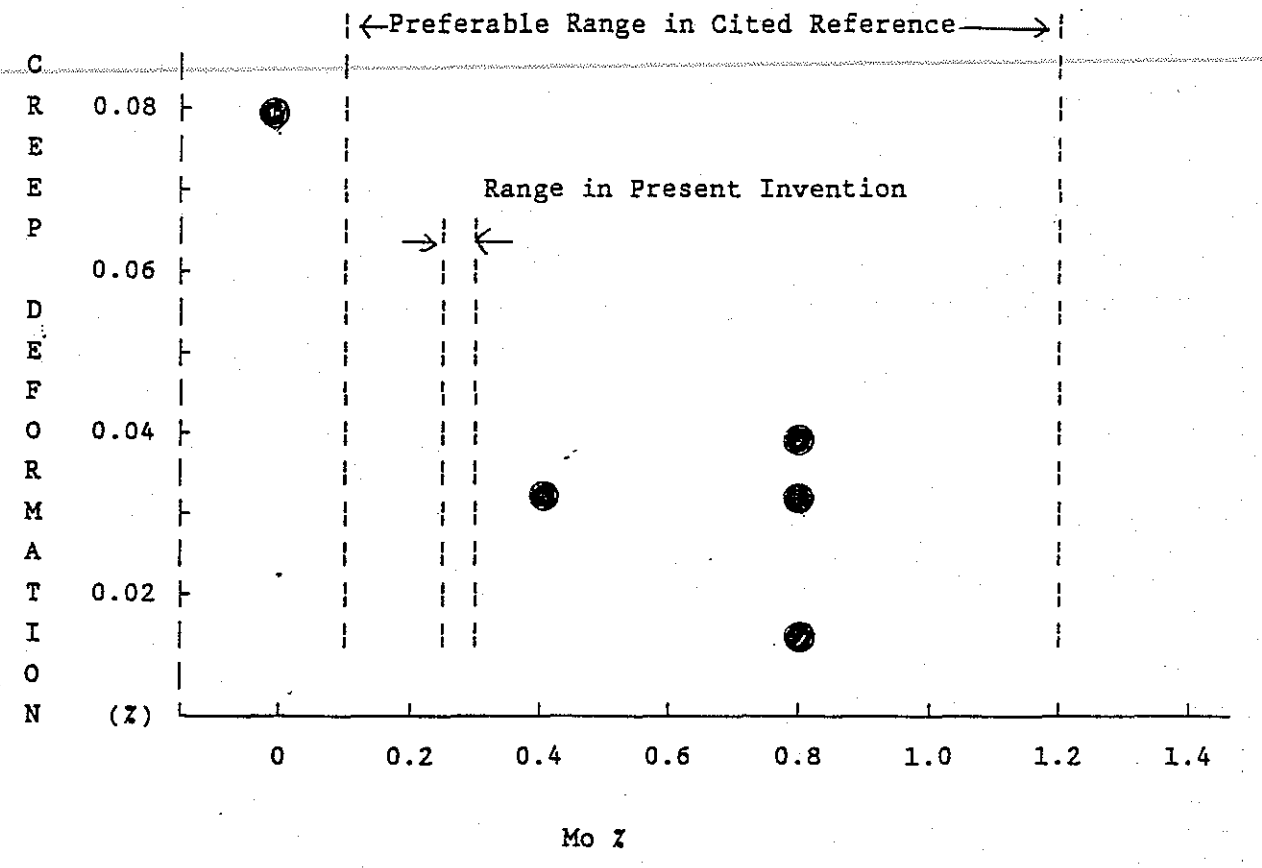
(*○: Overlapping; ◎ : Over with the example of embodiment)
(**: Not found in the description of the example of embodiment)

Table 4: Comparison in Composition Range with Cited Reference

Constituents	Composition Range in Present Invention			Preferable Composition Range in Cited Reference	Compared with Cited Reference (*)
	As of Publication (Product + Process Claims) Claim 1 (Product)	(Claim 3) (Product)	In Appeal Procedure (Product Only)		
Al	5 - 6	5.4 - 5.5	5.4 - 5.5	4.0 - 7.0	○
Sn	2.5 - 4.5	3.5	2.5 - 3.5	2.0 - 8.0	◎
Zr	2 - 4	3	3	0.3 - 7.0	◎
Si	0.2 - 0.4	0.3	0.3	0.1 - 0.35	◎
Nb	0.75 - 1.25	1	1 1.25		○ (X)
Mo	0.1 - 0.6	0.25 - 0.3	0.25 - 0.3 -1.3		○
Ta				At least one kind	
V				0.2 - 1.2	
W					
Ti	Remainder	Remainder	Remainder	Remainder	○

(* : Overlapping; : Overlapping with the example of embodiment)

Fig. 1: Mo Content and Creep Deformation



(1) **Title:** What is "Use of Trademark?" (Based on Recent Trial and Juridical Precedents)

(2) **Date:** October 1991 (22nd Rochester Convention)

(3) **Committee etc:**

1) Source: PIPA
2) Group: Japan
3) Committee: 1 (Trademark Group)

(4) **Author(s):** Kiyoshi Tanabe, Toshiba Corporation
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Matsushita Electric Industrial Co., Ltd.
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Ikuko Maruyama, Dow Chemical Japan Ltd.

(5) **Keyword(s):** Identity of trademark (in use with registered trademark); Identity of goods (for which the registered trademark is used with the designated goods); qualified goods under the Trademark Law; use of trademark; evidence of use.

(6) **Statutory:** JTL2(3), JTL19(2)-2, JTL37, JTL50

(7) **Abstract:** Examination and studies of trial and juridical decisions made in Japan between 1986 and 1990 on the use of trademarks as it relates to maintenance and control of a trademark right. In particular, emphases were placed on the identity of the registered trademark with the trademarks in use, relation of the registered trademark with designated goods, and how the use requirements of a trademark are satisfied.

"What is "Use of Trademark?" (Based on Recent Trial and Juridical Precedents)

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I. Preface

What is the use of a trademark? It must first be clarified to maintain and control the trademark right. For instance, renewal of a trademark registration requires evidence of that registered trademark being in use, and similar evidence must likewise be produced to get rid of cancellation of registration based on non-use alleged by other parties. In cases like the above, it will not be sufficient to simply prove that the trademark in question is in use. The evidence required must show what kind of a trademark is used for what kinds of goods and in what manners.

Thus, it is important for administration of trademarks to understand what the use of a trademark is. The use of a trademark must eventually be judged on a case-by-case basis and may not be defined flatly. Nevertheless, a study of trial and juridical precedents is believed to provide us with useful information for future administration of trademarks.

Members of the Trademark Group have, therefore, examined trial and juridical decisions made in Japan between 1986 and 1990 on the use of trademarks. In particular, emphases were placed on, among others, the identity of the registered trademark with the trademarks in use, relation of the registered trademark with designated goods, and how the "use" requirements of a trademark are satisfied.

Incidentally, a service mark system will be implemented in Japan in April 1992. Here again, "what the use of a service mark is" will probably be taken up as one of major issues. With this in mind, we have also made a study of those issues on use of the service mark that have so far been known to us.

II. Provisions of Trademark Law Relating to its Use

Our discussion here will relate principally to the application for renewal of registration, trial for cancellation of registration based on non-use, and infringements in which the theme, "What the use of a trade mark is," is directly and deeply involved.

Some of pertinent provisions of the Japanese Trademark Law are quoted below:

1. Definition of Use (Article 2 Paragraph 3 of the Trademark Law):

"Use" with respect to a mark in this Law means any of the following acts:

(i) acts of applying the mark on the goods or their packaging;
(ii) acts of assigning delivering, displaying for the purpose of assignment or delivery, or importing, the goods on which or on the packaging of which a mark has been applied;
(iii) acts of displaying or distributing advertisements, price lists or business papers relating to the goods on which a mark has been applied.

2. Provision Relating to Rejection of Application for Renewal of Registration Based on Non-Use (Article 19 Paragraph 2 Subparagraph 2 of the Trademark Law):

The term of a trademark right might be renewed by application for registration of renewal. Provided, however, that this shall not apply:

(1) Translation omitted.
(2) Where neither the owner of the trademark right nor the owner of a right of exclusive use nor the owner of a right of non-exclusive use has used the registered trademark (or, if there is another registered trademark which is an associated trademark with respect to the registered trademark, the registered trademark or such other registered trademark) on any item of the designated goods in Japan within three years prior to the filing of the application for registration of renewal.

Under the current version of the Law, the application for renewal of registration must be filed between six and three months preceding the expiration date of the duration of the trademark then in force. As the result of a partial amendment to the Trademark Law promulgated on May 2, 1991, it will have to be filed on, or at any time during six months prior to, the expiration date of the term then in force, effective as from April 1, 1992.

3. Provision Relating to Trial Decision for Cancellation of Registration Based on Alleged Non-Use (Article 50 of the Trademark Law):

(1) Where neither the owner of the trademark right nor the owner of a right of exclusive use nor the owner of a right of non-exclusive use has been continuously using, in Japan for three years or more, the registered trademark on each item of the designated goods, a trial may be demanded for the cancellation of registration of the trademark with respect to such designated goods.

(2) In the case where a trial under the preceding subsection has been demanded, unless the defendant can prove that either the owner of the trademark right or the owner of a right of exclusive use or the owner of a right of non-exclusive use has used in Japan within three years prior to the registration of the demand for the trial the registered trade mark (or if there is another registered trademark which is an associated trademark with respect to the registered trademark, the registered trademark or such other registered trademark) on any item of the designated goods to which the demand referred to relates, the owner of the trademark shall not avert the cancellation of the registered trademark for the designated goods.

* The above translations of the Law are the ones made by the Japan Group of AIPPI.

4. Provisions Relating to Infringements of Trademark (Article 37 of the Trademark Law):

The following acts shall be deemed to be an infringement of a trademark right or of a right of exclusive use:

(i) acts of using a trademark similar to the registered trademark on the designated goods or of using the registered trademark or a similar trademark on goods similar to the designated goods;

(ii) acts of holding, for the purpose of assignment or delivery, of the designated goods or similar goods on which or on the packaging of which the registered trademark or a similar trademark has been applied;

(iii) acts of holding of articles bearing a reproduction of the registered trademark or a similar trademark for the purpose of using such trademark on the designated goods

or similar goods;

(iv) acts of assigning or delivering, or holding for the purpose of assignment or delivery, of articles bearing a reproduction of the registered trademark or a similar trademark for the purpose of causing such trademark to be used on the designated goods or similar goods;

(v) acts of manufacturing or importing of articles bearing a reproduction of the registered trademark or similar trademark for the purpose of using such trademark, or causing it to be used, on the designated goods or similar goods;

(vi) acts of manufacturing, assigning, delivering or importing, in the course of trade, of articles to be used exclusively for manufacturing articles bearing a reproduction of the registered trademark or similar trademark.

III. Case Study on Trial and Juridical Precedents

A. Identity of Trademark in Use with Registered Trademark:

In an application for renewal registration of the term of a trademark right or in a trial for cancellation of a registered trademark based on the non-use thereof alleged by a third party, the trademark owner must prove the registered trademark being in "use" as to the designated goods. The term, "use," does not include that of any trademark similar thereto (except for a trademark registered as associated trademark).
It must be noted that a trademark is not necessarily required to be exactly identical in appearance to the registered trademark.

The Japanese Patent Office in March 1978 made public the "Examination Guideline for Determination of Whether a Registered Trademark is in Use" in respect of renewal applications. It says, "In determining whether a registered trademark is in use in connection with examination of an application for renewal registration of the term of a trademark right, observations must be made of whether a trademark in use could reasonably be found to be the same as the registered trademark, with due consideration for actual situation of commercial transactions in that particular industrial sector in which the designated goods involved in the registered trademark fall. Also, use must be determined based on circumstances of the respective particular cases. ...," quoting examples.

The above guideline would apply equally to determination of

use in trial decision for cancellation of a trademark. The examination guideline quoted above appears somewhat vague but, as trial decisions are accumulated, would become more realistic and particular.

Please bear in mind that Japan has diversified letter characters in use, and a sound may be expressed in different kinds of letters, such as "Hiragana," "Katakana," Chinese characters and the Roman alphabet. For this very reason, it is not seldom that identity of trademarks with the same sound, if composed of a different set of letters from the registered one, is contested.

In the following, we will study and analyze trial and juridical precedents:

* (As used herein, "Renewal" means an application for renewal of registration; "Cancellation", trial on cancellation of registration based on non-use; "Infringement", an infringement case).

1. Use of Letters of Either Line of a Registered Trademark which Consists of Two Lines, as in Alphabets and "Katakana:"

A trademark in which, judging from actual transactions involved, the "Katakana" line is considered to represent the sole, natural sound made in the other alphabetical line is likely to be found identical with the registered trademark. In a trademark in which the word in either line does not necessarily infer the word in the other line, however, use of either line only is unlikely to be considered the use of the registered trademark.

(Trial and Juridical Precedents)

Cases in which trademark used was considered identical with the registered trademark:

Trial/Juridical Case No. (Kind)	Registered Trademark	Trademark Used	Goods to which Applied
Trial S59-6373 (Renewal)	G I R A U D ジラウド	G I R A U D	Shirts
* Katakana [ジラウド] is pronounced [GI-RA-U-DO]			
Trial S57-7372 (Renewal)	M E R L E メルル	M E R L E	Blouses

* Katakana [メルル] is pronounced [ME-RU-RU]

Cases in which trademark used was not considered identical with the registered trademark:

Trial/Juridical Case No. (Kind)	Registered Trademark	Trademark Used	Goods to which Applied
Trial S56-25126 (Renewal)	P I O N E E R ピオナー	P i o n e e r	Fountain pen

* Katakana [ピオナー] is pronounced [PI-O-NA:]

Trial S55-21254 (Renewal)	林 間 リン カン	リンカン	Fishing schlaf

* The pronounciation of Chinese characters [林 間] is equal of Katakana [リンカン]. However, there are many Chinese characters which are pronounced [リンカン](PI-N KA-N)

Trial S55-21256 (Renewal)	M I L O ミーロ	M I L O	Animal milk, and products & imitations thereof

* Katakana [ミーロ] is pronounced [MI:-RO]

2. Use of Letters Constituting a Trademark in Different Manner from those Employed in Registered Trademark (such as Change in Type):

A trademark consisting of letters is considered identical with the registered trademark as long as the spelling as a whole is the same and identifiable as such, even if the letters are slightly redesigned or, in the event of English letters, script type is changed to print type or capital letters are partly changed to small letters. On the other hand, substantial changes, as from "Katakana" characters to English alphabets, are likely to make a trademark in use unqualified as the registered trademark.

(Trial and Juridical Precedents)

Cases in which trademark used was considered identical with the registered trademarks:

Trial/Juridical Case No. (Kind)	Registered Trademark	Trademark Used	Goods to which Applied
Trial S56-26226 (Renewal)	CRYOCEPS	CRY⊜CEPS	Frozen cataract extractor
Trial S54-1085 (Cancellation)	captain	CAPTAIN	Whiskey
Trial S56-9409 (Renewal)	Denon	DENON	Record player
Trial S56-24302 (Renewal)	WEATHER-OMETER	WEatHEr OmEtEr	Anti-light security and weatherability promotion testing apparatus
Trial S57-16204 (Renewal)	SUNV	SUNV	Electronic computer
Trial S58-17481 (Cancellation)	MCREED マックリード	マックリード McReed	Bag
Trial S59-23248 (Renewal)	SENCOR センコール	SENCOR	Tape Reorder
Trial S57-20421 (Renewal)	奈芽ツ子	奈芽つ子	Bun with bean-jam filling

* The pronunciation of Katakana [ツ] is equal to that of Hiragana [つ].

Juridical 63 (Gyo Ke) 239 (Cancellation)	Wilcos	WILCOS	Telecommunication apparatus

Cases in which trademark used was not considered identical with the registered trademark:

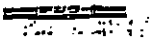
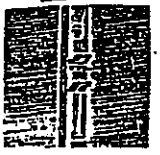
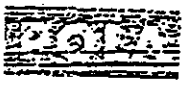
Trial/Juridical Case No. (Kind)	Registered Trademark	Trademark Used	Goods to which Applied
Trial S56-23173 (Renewal)	デルパットエー	デルパットA	Adhesive plaster
* Katakana [エー] is pronounced [E:].			
Trial S56-10360 (Renewal)	アスティーム	アステーム	Body lotion
* Katakana [アスティーム] is pronounced [A-SU-TI:-MU]. Katakana [アステーム] is pronounced [A-SU-TE:-MU].			
Trial S55-10508 (Renewal)	マツク	マックバーガー	Sandwich with Hamberg steak
* Katakana [マツク] is pronounced [MA-TSU-KU]. Katakana [マックバーガー] is pronounced [M K-BA:-GA:]			
Trial S57-13120 (Cancellation)	シボレー	S i b o l e y	Odor remover-aromatic
* Katakana [シボレー] is pronounced [SI-BO-RE:].			
Trial S58-19879 (Renewal)	メンナップ	メンナップ	Menstrual pad

3. Use of Trademarks Differently Composed from Registered Trademarks:

With reference to difference in arrangements of letters and/or figures, if, judging from the trademark in use as a whole, the combination of material portion as identifying mark of the trademark in use remains the same as that of the registered trademark, the trademark in use may be considered to be of the same construction as, and considered to be identical with the registered trademark. A trademark in use is not protected in many cases where a registered trademark is placed within a figure which is not a supplement to, or a figure within a registered trademark is removed, or type of letters in a registered trademark is changed.

(Trial and Juridical Precedents)

Cases in which trademarks used were considered identical with the registered trademarks:

Trial/Juridical Case No. (Kind)	Registered Trademark	Trademark Used	Goods to which Applied
Trial S56-24727 (Renewal)			Chocolate candy
Trial S56-7200 (Renewal)			Powdered medicine
Trial S55-19418 (Renewal)	カメヤママン KAMEYA MAMAN	Kameya Maman カメヤママン	Japanese-style confession
Trial S56-20263 (Renewal)			Automobile polishing material
Trial S57-6291 (Renewal)			Kitchin Scale
Trial S61-8690 (Renewal)			Toothbrush
Juridical Tokyo High 3.2.282 (Gyo) 48 (Cancellation)			Fruit

Cases in which trademarks used were not considered identical with the registered trademark:

Trial/Juridical Case No. (Kind)	Registered Trademark	Trademark Used	Goods to which Applied
Trial S55-9639 (Renewal)	CBP ACK 	CB PACK 	Electric machines/ tools
Trial S55-749 (Renewal)	I. C. I.		Pepper
Trial S58-8186 (Renewal)			Hose
Trial S58-6012 (Renewal)	株式会社 東武百貨店	池袋東武百貨店	Accessory

* Kabushiki Kaisha Tobu Hyakkaten vs. Ikebukuro Tobu Hyakkaten

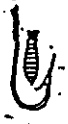
" Tobu Hyakkaten" (meaning tobu Department Store) functions as trademark independently. But substituting "Ikebukuro" (geograghical name0 for "Kabushiki kaisha" (meaning Ltd.) is regarded to cause defference visually.

Trial S57-4396 (Renewal)	実宝		Chemicals
Trial S59-4445 (Renewal)			Processed foods
Trial S57-15343 (Cancellation)	涼 	 	Men's underwear

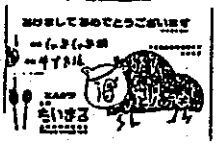
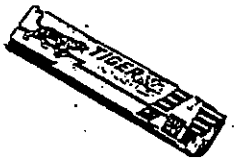
4. Use Modifying, in Whole or in Part, Registered Trademark Composed of a Figure:

A trademark in which color is changed or an outdated figure is revised to a modern one, with no particular change otherwise in its composition as trademark, may be considered identical with the registered trademark. Any trademark in which a substantial change is involved as to composition of figure itself is very likely to be considered an unqualified use of the registered trademark.
(Trial and Juridical Precedents)

Cases in which trademarks used were considered identical with the registered trademarks:

Trial/Juridical Case No. (Kind)	Registered Trademark	Trademark Used	Goods to which Applied
Trial S58-22218 (Renewal)			Salt-seasoned sea-tangle
Trial S55-13893 (Renewal)			Hose
Trial S55-16706 (Renewal)			Metal saw
Trial S58-24245 (Renewal)			Saw

Cases in which trademarks used were not considered identical with the registered trademark:

Trial/Juridical Case No. (Kind)	Registered Trademark	Trademark Used	Goods to which Applied
Trial S55-14834 (Renewal)			Wheat-gluten bread
Trial S56-12280 (Renewal)			"Shabushabu"
Trial S59-12392 (Renewal)			Hats/caps
Trial S56-11542 (Renewal)			Pencils

5. Use of Trademark with Additional Words or Signs:

A trademark with such additional word or sign as hyphen or prolonged sound mark which word or sign would reasonably be deemed rather minor and not make any particular difference in substance from the registered trademark is considered a qualified use of the registered trademark. Any trademark with an additional word or sign bearing particular meaning or any trademark with additional letters giving rise to a different word or meaning would be tested, based on the nature of such additional word. If such additional word relates to quality, class or the like, it is very likely that the trademark so modified is considered not to affect identity thereof.

(Trial and Juridical Precedents)

Cases in which trademarks used were considered identical with the registered trademarks:

Trial/Juridical Case No. (Kind)	Registered Trademark	Trademark Used	Goods to which Applied
Trial S55-21824 (Renewal)	ドロンコ美容	ドロンコ美容だより	Paper issued every 10 days

* DORONKO BIYO VS. DORONKO BIYO DAYORI
DORONKO BIYO means Clay Cosmetology. Addition of "DAYORI," a Japanese word equivalent to "periodical publications" or "news," is recognized as use of generic term following the trademark.

Trial S56-26219 (Renewal)	P A C E R	P A C E R S	No description available
Trial S57-4932 (Renewal)	金タイヤ	金タイヤー印	Machine silk

* KIN TAIYA VS TAIYA: SHIRUSHI
KIN TAIYA (meaning gold tire) is regarded as the core portion and addition of a hyphen-like mark which, when used in Japanese, makes a long vowel sound is judged to make no significant difference. SHIRUSHI is a Japanese word equivalent to "brand."

Trial S60-11352 (Renewal)	CATFLOC	CAT-FLOC	Cation coagulant for water purification use
Juridical S63 (Gyo Ke) 255	クリン	クリン・エキスパンカナグ	conjunction fittings for tile

* KURIN vs KURIN EXPANDA KANAGU
" KURIN" is regarded as the core portion and the additional part, "EKISUPANDA" (phonetic description of "expander") "KANAGU"

(metal fittings)is regarded as generic term indicating "Expander Metal Fittings."

Cases in which trademarks used were not considered identical with the registered trademark:

Trial/Juridical Case No. (Kind)	Registered Trademark	Trademark Used	Goods to which Applied
Trial S58-15927 (Renewal)	PHOTCODER	PHOTOCORDER	Electric ceramics-tester
Trial S55-4161 (Renewal)	長一丸	前田長一丸	Saw

* CHO: ICHIMARU vs MAEDA CHO: ICHIMARU
Both CHO:ICHIMARU and mAEDA are proper nouns having no meaning. Therefore addition of MAEDA has made a defferent mark consisting of two distinctive word, each rearded as the core portion.

Trial S57-6289 (Renewal)	TOKICO	TOKICO REVIEW	Technology magazine

* TOKIKO vs TOKICO REVIEW
In Japan, the English word "review" in the sense of "commentary" or " publications" is not being used so widely as in the English language society.

Trial S58-6008 (Renewal)	モールトン	ナショナルモールトン	Printing paper

* MO:RUTON vs NATIONAL MO:RUTON

Trial S57-8151 (Renewal)	リッチ	三井リッチ配合	Mixed fertilizer

* RICCHI vs MITSUI RICCHI HAIGO
HAIGO means mexture which could be recognized as customarily shortened usage pof mized fertilizers in fertilizers industry. But Mitsui is another word meaning notheing which hads its own distinctiveness, and both MITSUI and RICCHI were both recognized as core portions.

6. Partial Use of Registered Trademark (with Omission of Words or Signs):

If omitted letters are phonetic signs, explanation or something like that, the trademark in use would be tested, based on whether the registered trademark so partly omitted could reasonably be considered in substance the sound of essential part of, or substantially the same in idea as, the registered trademark.
(Trial and Juridical Precedents)

Cases in which trademarks used were considered identical with the registered trademarks:

Trial/Juridical Case No. (Kind)	Registered Trademark	Trademark Used	Goods to which Applied
Trial S57-13085 (Renewal)	バネチュアー	バネチュア	Toothbrush

* BANECHUA: vs BANECHUA

Addition of hyphen to make a long vowel makes no big difference to the overall looks and sound.

Trial S59-11302 (Renewal)			Western style kitchen knives

* FUSHICHO/TRIANGLE PICTURE/ PHENIX vs TRIANGLE RICTURE/PHENIX
The Chenese letters added at the top of the rriangle is a word meaning Phoenix and it is regarded asd explanation of the picture of phoenix drawn in the triangle.

Trial S60-2434 (Renewal)	F S G - L I N E	F S G L I N E	Automatic burning adjuster

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Cases in which trademarks used were not considered identical with the registered trademark:

Trial/Juridical Case No. (Kind)	Registered Trademark	Trademark Used	Goods to which Applied
Trial S53-4599 (Cancellation)			Stop valve

* PICTURE/Dia Met Ring/DIAMETORINGU (Katakana) vs PICTURE
The Japanes Katakana characters at the bottom is the phonetic description of DIA MET RING. Each of the letter portion under the picture and the picture portion was regarded as the fore portion, withwout difference in its weight.

Trial S55-4164 (Renewal)			Sharp-edged tools

* TRIANGLE MARK + T/UROKOTE: vs TRIANGLE MARK + T
It is hard to say the mark of T inside a triangle is always recognized as UROKO T. (The triangle mark is sometimes called in Japanese as UROKO, meaning scale of fish).

Trial S57-22612 (Cancellation)	INNO-HIT	INNO-HIT	Car radio sets
Trial S57-24232 (Renewal)	DIADUST LIMITED	DIADUST	Abrasive composed of crushed diamond

B. Goods

In order to be recognized to be in use, a trademark must be used with respect to the "goods" under the Trademark Law. In order for a registered trademark to be in use, goods for which it is used must be the any of "designated goods." In this chapter, we will examine and study precedent cases in which goods under the Trademark Law and use for the "designated goods" was argued.

1. Eligibility for Goods under the Trademark Law:

(1) "Goods" under the Trademark Law:
The Trademark Law does not provide a definition of "goods." For this reason, a question oftentimes arises as to whether given goods are the "goods" under the Trademark Law.
The goods protected under Trademark Law are defined by scholars typically as "tangible property, being the object of business

operations, exchangeable in the market for money or property" (by Shoen Ono) or "substitutive tangible property directed to circulation as object of commercial transactions and, thus, having an exchange value" (Shuichi Araki). Juridical precedents do not seem to provide any definition substantially different from the above academic definitions. Some leading definitions from recent judgments are quoted below:

- The goods under the Trademark Law must be construed as tangible property which can be placed in circulation as object of commercial transactions, or as tangible property produced or transacted for the purpose of being placed in circulation in general markets (Tokyo High Court, 1991 "Gyo Ke" 139, decided Nov. 7, 1989 [Renewal]).
- The goods under the Law are those which, being an object of independent commercial transactions, have an exchange value for themselves and can be placed in circulation (opinion of Japanese Patent Office in the same case as the above).

  Service itself is an intangible form of profit and is not considered the goods under the Trademark Law (Yokohama District Court, Kawasaki Branch, 1986, (wa) 363, decided April 28, 1988 [Infringement]).
- Posters and leaflets for advertisement purposes ... may not be considered to have circulation independently for themselves as object of commercial transactions, and therefore may not be the "goods" under the Trademark Law ... (Yokohama District Court, Kawasaki Branch, 1986 (Wa) 363, decided Apr. 28, 1988 [Infringement]).

In the following, we will examine cases, selected from recent trial and juridical precedents, in which whether use of a trademark was for the "goods" under the Trademark Law was argued, and see the recent trend of the precedents.

(2) Guideline for Determination of Goods, under the Trademark Law, as seen from Trial and Juridical Precedents:

(a) Consideration for which goods are traded is an essential condition in order for goods in question to be the "goods" as object of commercial transactions. In the event of transactions between certain parties or of sale of goods to certain consumers, for example, goods sold for consideration are generally considered the "goods" under the Trademark Law. Also, in touchy cases in which it is not specifically clear whether goods were sold or not, it is held that goods are sold as long as the price therefore is stated. In addition, regardless of the purpose of manufacture or use, goods traded for compensation, however it is nominal, are held to be the "goods" under the Trademark Law.

Conversely, those not traded for consideration, such as giveaway goods, are not held to be the "goods" under the Trademark Law. (Trial and Juridical Precedents)

1) The mere fact that a Chinese character-Japanese dictionary indicating the price of "¥200" in the imprint is given away is not sufficient to deny its being printed matter as the "goods" under the Trademark Law (1982, Trial 13083, Mar. 17, 1988 [Renewal]).

2) A magazine of a cosmetic company with notation of date of "May issue, ¥50" in addition to date and place of publication and editor's name on front and back covers is the "goods" under the Trademark Law (1982, Trial 7722, decided June 22, 1989 [Renewal]).

3) A magazine found from its covers and imprint to be published and sold consecutively is the "goods" (magazine) under the Law (1982, Trial 14190, decided Oct. 23, 1986 [Renewal]).

4) Carton boxes sold by a transport company are the "goods" under the Trademark Law, if supported by written esti mates submitted to its client, showing sales price thereof (1981, Trial 707, decided Mar. 27, 1986 [Renewal]).

5) Those stamps in exchange for commodities which are traded for consideration between stamp dealers and participant shops may be said to be the "goods" (printed matter) under the Trademark Law (1981, Trial 15566, May 15, 1989 [Renewal]; 1981, Trial 15587, July 28, 1988 [Renewal]).

6) A film for sales promotion and/or information is the "goods" (printed matter) under the Trademark Law (1984, Trial 6290, decided Sep. 19, 1989 [Renewal]).

7) Calendars given away to customers are not the "goods" under the Trademark Law (1984, Trial 9916, decided Sep. 29, 1988 [Renewal]).

8) T-shirts given away to purchasers for advertisement of musical instruments and/or sales promotion purposes are not the "goods" under the Trademark Law (Osaka District Court, 1986 (Wa) 7518, decided Aug. 26, 1987 [Infringement]).

(b) Circulation:

To be the "goods" under the Trademark Law, goods must traditionally be capable of being circulated in commerce, in particular, in the general market or among many and unspecified parties.

(Trial and Juridical Precedents)
1) Sale of towels to members and friends of similar taste would be directed to many and unspecified consumers and, therefore, represents the use of a trademark for the "goods" (clothes) under the Trademark Law (1986, Trial 2223, decided Jan. 20, 1988 [Renewal]).

2) "Sushi" for takeout available at a "Sushi" shop comes under the "goods" referred to in the Trademark Law (Osaka District Court, 1984 (Wa) 5473; 1986 (Wa) 2367, decided Oct. 9, 1989 [Infringement]).

3) Raw materials of broiled eels and noodle stew seasoned with bitter orange juice sold at a takeout corner of a restaurant are the goods under the Trademark Law (Tokyo High Court, 1989 (Gyo Ke) 150, decided Mar. 28, 1990 [Infringement]).

4) "Origami," or the art of folding paper into various forms of figures, sold by its trademark owner to pharmacies as giveaway to go with goods sold to consumers, is not tangible property furnished for the purpose of distribution in the general market (Tokyo High Court, 1989 "Gyo Ke" 139, decided Nov. 7, 1989 [Infringement]. See (1) above.)

5) A trademark shown on a catalog of goods explaining "Yakitori," or grilled chicken, served at a restaurant is not intended for circulation of goods in general markets and, therefore, is not used for the "goods" under the Trademark Law (1981, Trial 10355, decided Oct. 22, 1987 [Renewal]).

6) Dishes served to customers within a restaurant would not be circulated and, therefore, are not the "goods" under the Trademark Law (Osaka District Court, 1984 (Wa) 5703, decided Dec. 25, 1986 [Infringement]).

7) Calendars given away to customers for advertisement are not the "goods" under the Trademark Law sold to many and unspecified dealers and consumers (1984, Trial 19322, Sep. 19, 1989 [Renewal]).

(c) Independence:

In order to be qualified as the "goods" under the Trademark Law, goods must be transacted independently. For example, parts transacted as component incorporated into a machine or property used in the course of furnishing of service are not the "goods" under the Trademark Law. Nor, is any property advertising or explaining certain goods or service tantamount to the "goods" under the Trademark Law.

(Trial and Juridical Precedents)

1) Rivets sold not only as accessory to riveting tools but as object of transactions for themselves are the "goods" under the Trademark Law (1983, Trial 1256, decided Oct. 20, 1988 [Renewal]).

2) Connectors used as part of machines or tools and constituting an element thereof together with other parts and as such circulating as object of commercial transaction are no longer connectors but the machines or tools themselves (Tokyo High Court, 1987 (Gyo Ke) 150, decided Apr. 12, 1988 [Cancellation]).

3) A pamphlet soliciting correspondence course students in letter writing advertises guidance and service, and training materials therefore are service accessory goods in the course of the training service. They are not the "goods" under the Trademark Law (1980, Trial 16118, decided Oct. 8, 1985 [Renewal]).

4) Perspective drawings of building external appearance are accessory goods and not the "goods" under the Trademark Law (1980, Trial 19213, decided Sep. 12, 1984 [cancellation]).

5) Posters, leaflets, envelopes for subscription, brochures and programs in connection with a theater play are not the "goods" under the Trademark Law (Yokohama District Court, Kawasaki Branch, 1986 (Wa) 363, decided Apr. 28, 1988 [Infringement]. See (1) above).

6) A brochure distributed to prospective newcomers and explaining the employer's activities etc. and pamphlets soliciting employees to work for it are not the "goods" under the Trademark Law (1984, Trial 15703, decided Nov. 13. 1985 [Renewal]).

7) T-shirts given away to purchasers for advertisement of musical instruments and as sales promotional giveaway are not intended

to be the object of transaction for them selves and, therefore, are not the "goods" under the Trademark Law (Osaka District, 1986 (Wa) 7518, decided Aug. 26, 1987 [Infringement]).

8) Carton boxes containing reels should be considered accessory or appurtenant to reels as goods and, therefore, are not the "goods" under the Trademark Law (1984, Trial 20915, decided Oct. 26, 1989 [Renewal]).

9) Leaflets distributed for advertisement in connection with sale of various goods in the course of business operation are not the "goods" under the Trademark Law (1982, Trial 15318, decided Dec. 8, 1988 [Renewal]).

d) Substitution:

In order to be considered the "goods" under the Trademark Law, goods must be supplied in the same quality and in quantity, and are required to be substitutional. For example, a custom-made single piece of goods is not the "goods" under the Trademark Law.

(Trial and Juridical Precedent)

A custom-made picture plate, framed picture or the like is not the "goods" under the Trademark Law (1983, Trial 19147, decided Mar. 8, 1990 [Cancellation]).

(e) Tangible Personal Property:

It has now become a well settled theory and practice that real estate is not the "goods" under the Trademark Law, in that no cases arguing about this matter are found during recent years. The "service," which is also called "intangible goods," is not the "goods" under the current provisions of the Trademark Law but, after the service mark system is implemented, will be protected under the Trademark Law as amended.

2. Identityof Goods in Use with Designated Goods:

(1) Testing Guideline for Identity of Goods:
(a) Examination Guideline for Renewal Application of Registration:

The Examination Guideline contain provisions in respect of handling of the "goods". as follows:

i) A renewal application of registration shall be rejected only if there is strong belief available that goods did not exist at the time of initial application for registration of which renewal application is hereby made.

ii) If, although goods, of which renewal application for registration is hereby made, did not exist at the time of initial application for registration thereof, they are considered to be substantially of the same kind as designated goods, with due consideration for quality, shape, use, and functions of such goods, as well as conception of designated goods to which such goods are classified and generally accepted idea of transactions involved, then such goods shall nevertheless be treated as falling under the said designated goods.

The foregoing means, in short, as goods in use relate to the designated goods, as follows:

1) Goods which did not exist when the trademark right came into being were not included in the scope of that right so registered. Hence, use of the trademark must be restricted to those goods that were evidently existent at the time of initial application for registration of the trademark thereof.

2) Goods in use for which a renewal application of registration is made must be of the same kind in substance as those initially registered, although name of goods in use or descriptions thereon may not be exactly the same as those of the designated goods.

(b) Testing Guideline for Cancellation of Registration Based on Non-Use:

No examining guideline are provided with respect to the identity of goods in the case of trial for cancellation of registration because of no-use. It is likely, therefore, that, when examining an application for cancellation of a registration based on non-use of the registered trademark, the Patent Office refers to the examining guideline for the renewal application for registration as referred to in (a) above.

In a juridical precedent case which represented an appeal made from the decision of a trial case in which registration of a trademark was cancelled based on alleged non-use thereof (1982

(Gyo Ke) 68, decided May 14, 1985, by Tokyo High Court), it was held that "whether goods in use fall under the designated goods should not be decided solely according to name, descriptions, etc. but what traders and consumers of the particular goods in use would think of must be judged in substance" and that, "with respect to certain goods with a plurality of uses, it would not be reasonable to assume that such goods as could hardly be decided to be any or either one of uses should always be classified into one for registration purposes and not to two or more differently qualified uses, and any goods really with a plurality of qualified classifications of uses could be entitled to such diversified uses for which a registered trademark is available."

(2) Precedent Cases in which Identity of Goods were Argued:
(a) Goods Held to be Substantially the Same:

	Name of goods in use	Goods designated or claimed	Points of decision
1	"Sakiika" "Yakiika"	Dried cuttlefish	Identical regardless names
2	Strawberry Essence" (Additive for refreshments)	Seasoning materials for food and drink	Not always excluded Could reasonably included
3	Electric Experimental Kit	Toys	Descriptions in manual etc.
4	High Frequency-use Powerful Magnetic Substance	Pressed powder core	High frequency-substance is include
5	Learning Workbook	Study magazines on science	
6	Parched Corns	Meat etc.	Erroneous description of goods for "Cornflakes"
7	Electronic Translator	Electronic computers	Substantially identical function

8	Stationery	Table mat	An article similar to sealing mat.
9	Parts for spinning frame (Gear)	Machine elements	Parts of spinning machine are occasionally traded as "machine elements" Difficult to clearly distinguish
10	Conjunction fittings for tile	Components of structure in which tile is used is used	Goods in use are for dedicated use, being distributed for restricted use
11	Accessory for Hand Tool with Power	Rivet	Is traded itself, not only as accessory of riveting tool (Cl. 9)

Cases Nos: 1, S56-12283; 2, S55-750; 3, S57- 6686; 4, S55-16119; 5, S55-21253; 6, S56-3434; 7, S56-23882; 8, S55-11499 (So far renewals); 9, S53-15878 (Cancellation); 10, S63 (Gyo Ke) 258 (Cancellation); 11, S58-1256 (Renewal)

(b) Goods Held Substantially Different:

1) Goods Decided to be Differently Categorized:

	Claimed name of goods	Goods in actual use class	Points of decision
1	Glove (17)	Washing sponge with gloves (20)	
2	Part of motorboat (out-of-board motor) (formerly 17)	Engine of motorboat (formerly 20)	Formerly, differently classified goods.

3	Partition with a sign (20)	Decorative illumination apparatus composed of optical fiber (9)	
4	Indicating lamp, protector (11)	Marker lamp, traffic sign (9)	A kind of safety machines-tools
5	Company employee's pocketbook (diary) (formerly 66)	Pocketbook (25)	Regarded as pocketbook, based on socially accepted idea
6	Barber goods(9)	Hand-drier (11)	
7	Printed matter (26)	Housekeeping account book (25)	Housekeeping account books with useful information are still a kind of "account book" (25)

Cases Nos: 1, S63 (Gyo Ke) 31 (Cancellation); 2, S58-7552 (Renewal); 3, S56- 23433 (Cancellation); 4, S57-5108 (Renewal); 5, S55-20681 (Renewal); 6, S57- 19112 (Cancellation); 7, S56-19669 (Renewal).

2) Goods Decided to be Substantially Separate Ones in Spite of Relativity:

	Claimed name of goods	Goods in actual use and resigned class	Points of decision
1	Vinyl protector for boots	Toilet article case (a kind of toilet article case)	Previously decided upon in another cancellation case
2	Sole of rubber digitated socks (formerly 16)	Japanese digitated socks (formerly 36)	Depends on descriptions in manual
3	Magazine	Complete collection of arts	
4	Salicate (chemical)	A kind of medicine	Separate goods

5	Antibiotic substance (chemical)	Antibiotic product (medicine)	Separate goods
6	Machines and tools for civil engineering works and stevedoring	Valves and disaster prevention tools	Separate goods
7	Chemical goods (1)	Oxygen breathing apparatus (10)	Dissimilar goods

Cases Nos: 1, S53-8065 (Cancellation); 2, S56-26218 (Renewal); 3, S52-9664; 4, S56-19727; 5, S58-15940; 6, S57-20433 (Cancellations); 7, S62 (Wa) 1128 Osaka District Court [Infringement].

3) Completed Goods Decided to be Non- Identical to Same Thing as Component or Accessory:

Goods of which cancellation was claimed	Goods in substantial use	Points of decision
1 Chemical machines and tools	Joint	When incorporated into a machine as a part, it becomes an element of the machine, and no longer circulated in commerce independently
2 Cartridge printing ribbon used in ticket issuing machine and cash registers and stamps for automatic stamping apparatus	Electric computers	They are used for electric computers
3 Electric locking system and security machine and devices	Diamond wheels, circular saws (used as accessory to life-saving cutters)	Not always identical, depending on manufacture, trader, use, etc.
4 Image cycle machines and tools	General purpose image recognition devices	Separate completed goods with different function and use, although incorporable into

			a system
5	Measuring instrument	Medical aids	Pressure gage was incorporated as accessory into medical aids
6	Air conditioner	Condenser	Condenser was incorporated as a part into air conditioners

Cases Nos: 1, S62 (Gyo Ke) 150; 2, S58- 15947; 3, S58-2801; 4, S61-12032; 5, H1- 179; 6, H1 (Gyo Ke) 267 (All cancellation)

As far as we can see from the trial and juridical precedents shown above, the identity of goods in use and the designated goods was decided upon, based upon the testing guideline of "whether they were substantially of the same kind," rather than names or descriptions of the goods. Those decisions are reasonable.

C. Does Use of Trademark Amount to Use of the Registered Trademark under the Law?

A registered trademark, when used for certain goods, is not necessarily tantamount to qualified use of a trademark as to any and all activities thereof. The question of whether it constitutes qualified use of a trademark is tested, depending on whether its use in respect of the goods satisfies functioning requirements as identifying mark. In other words, what element or elements of given goods serve to provide the trademark with meaningful means? In the case of a T-shirt, for instance, a judgment must be based on what used portion of it serves to show its source. Some of the precedent cases are given below:

(1) A mere description in a pamphlet of a series of technical processes does not amount to use of a trademark:

(Use of the Registered Trademark Awarded)

Trial S57-5109: The term, "5 minutes," described in connection with an anybody, antifertility or the like, meaning "five minutes for removal of fever," was held to stand for the use of "5 minutes" of the registered trademark.

(Use of the Registered Trademark Not Awarded)

Trial S62-2811: Renewal registration was rejected in

respect of a trademark, "SYNCRETE," on the grounds that it was used on an pamphlet describing a method of concrete engineering, simply showing a series of technical processes.

Trials 59-3416: The word "Sutabi" in Japanese "Katakana," having no more descriptive meaning than an abbreviation of "stabilizer" was held not tantamount to use of a trade mark.

(2) A mark considered no more than a mere pattern, with no more than design effect, does not have the identifying function:

(Use of the Registered Trademark Awarded)

Osaka District Court, Mar. 28, 1987: A pattern-like figure covering the whole face of certain goods, used with any design effect so as to provide the identifying function, could amount to use of a trademark (a Louis Vuitton case).

(Use of the Registered Trademark not Awarded)

Trial S55-9212: Renewal registration was rejected in respect of a trademark which was used to serve solely as ground design of a tissue paper box.

Trial S56-11538 Large designs and/or letters shown in the breast portion of shirts are for decorative and designing effect to stimulate buying interest of consumers and do not serve as trademark.

(3) Titles of books and names of writers shown in books are not tantamount to use of the registered trademark:

(Use of the Registered Trademark Awarded)

Trial S57-12747: The words "NHK Overseas Series" appearing under a half wrapper of a book entitled "Micronesian Report" may be described as consecutive use in its series and represents use of registered trademark, "Overseas Series."

(Use of the Registered Trademark Not Awarded)

Trial S56-23410: Renewal registration was rejected in respect of the name, "Machiko Hasegawa," shown on the backbone and imprint of a book, on the grounds that it represented who the writer was and not use of the trademark.

Tokyo District Court Sep. 16, 1988: The description, "Introduction of POS and How it is Used," given in a book as title showing what the book is about does not constitute an infringement of the registered trademark, "POS," because it is shown in the book in a manner in which the source identifying function is not provided.

(4) The fact that the trade name as trademark basically represents the entity which conducts business with it does not, by itself, serve as valid grounds for denying its being a trademark.

(Use of the Registered Trademark Awarded)

Trial S59-6985: Renewal registration of a trademark, "Kabushiki Kaisha Meiji Seisakusho," as shown together with the name of manufacturer on the back cover of a catalog, was awarded on the grounds that its being indicative of its own name does not, by itself, negate its being a qualified use of the trademark.

Trial S56-10017: The trade name, "Fujino Mengyo Kabushiki Kaisha," in larger letters as part of the name and its address printed together in the lower portion of a package of wrapping paper is shown in a place easy to draw attention of consumers and thus fully serves as a qualified trademark with identifying function.

D. Evidence of Use of the Registered Trademark:

As Article 2 Paragraph 2 of the Trademark Law provides for the definition of "Use of Trademark," any material showing such use of trademark is available for evidence thereof, such as pictures of goods, wrapping paper or label bearing it, articles in which goods are advertised with it, catalogs of goods in which it is used, and other transaction papers in which it is used (such as price list and vouchers).

Such evidence is filed with the Japanese Patent Office as "evidence of the trademark in use" at the time of application for renewal registration as well as trial for cancellation thereof based on alleged non-use. In few cases arguments were made as to what appropriate evidence would be. However, in trial cases in which use of a trademark was contested by the complaining party for cancellation thereof,

Material of which production date or time of distribution was not clear were not held to be evidence of use of the trademark (Trial S55-5343 (cancellation awarded), decided Aug. 14, 1985; Trial S57-17682 (cancellation awarded, decided Feb. 12, 1988).

Evidence in which the date when it was originally produced or the time of use is unclear or which is not supported by factual use of the trademark is likely to be contested by the complaining party to the case of cancellation of trademark as to

whether it constitutes "use of a trademark."

The "use of a registered trademark" is broad enough to include not only the use by the owner of the registered trademark but the use by any licensees thereof under contract.

IV. Suggestions on Use (including Evidence thereof)

A. Identity of Trademark:

While a trademark should preferably be used in exactly the same manner as it is registered, any modification thereof under unavoidable circumstances is always subject to certain restrictions. It should be the basic approach to keep any such modifications within the framework reasonably acceptable. Whether a proposed change falls within a reasonably acceptable range is a difficult problem to judge. Nevertheless, the "Examination Guideline" of the Japanese Patent Office, from which some are quoted below, would give you some idea.

(1) If you want to have registered a 2-line trademark, consisting of "Katakata" letters and alphabets, and to use either one line only, your application for registration must be made out in such manner that the sound of either one would lead to perception of the other without difficulty.

(2) If you want to change registered letters to a logo or design, keep such change to such extent that the changed one would remain the same as a whole as the original one. Avoid any drastic change so as to make the original form unidentifiable.

(3) In the event of change of combination or partial use of a trademark composed of two or more figures or words, make sure which part constitutes the principal, essential part and avoid such arrangements by which it may be taken as a different trademark.

(4) In any of the foregoing cases, apply for an associated trademark if a question is likely to arise as to identity of the trademark.

(5) When changing the mode in which a trademark is used while the registration is in effect, retain some of labels, pamphlets, etc. previously used for future use as evidence.

(6) As a means of effective control within your organization, designate any specific logo to be used, have any change thereto brought to your attention for a prior approval, and develop and distribute a manual thereof, all to enhance employees' consciousness of the trademark. It may also be an idea to have a sample of the trademark in use submitted to you on a periodical basis by various departments to see how it is actually used and to make the regular usage familiarized among the interested parties.

B. "Goods:"

In order to be considered the use of trademark, it must be used in respect of the "goods" under the Trademark Law.

Guideline for testing it should include whether it is capable of being circulated in commerce, whether there is consideration therefore, whether it is traded independently, whether it is substitutional, and whether it is tangible personal property. In order to be in use, a registered trademark must be used for properly selected classes of goods. The following are our suggestions to be observed:

(1) When you are requested for an application for a trademark to be registered, see what goods it is to be used for.

(2) Prior to filing of an application, carefully determine the class into which the proposed trademark should properly be classified. If goods for which the proposed trademark is intended is later changed or found to come under a different class, then file another application for the proper class. If the goods for which you now want to use the trademark do not come under any of illustrated goods in various classes of goods, refer to the "Manual on Classes of Goods," and "List of Names of New Goods."

(3) If goods are incorporated as component into a completed product and, at the same time, used as accessory to it, be sure your application is made out for not only the class under which the goods as a completed product comes but also the class applicable to the goods into which the goods could be incorporated.

C. In Order to be considered a mark to be in Use of a Trademark under the Trademark Law:

In order to be considered in use of a trademark under the Trademark Law, a mark used must be so used as to distinguish the goods to which it is applied from other goods. No trademark which is only indicative of the function of the goods to which it is applied may be said to be the trademark in use under the Trademark Law. Our suggestions in this regard follow hereunder:

(1) Use of a mark simply showing what the technology employed in the goods to which it is applied is does not amount to use of a trademark under the Trademark Law. Thus, a mark must be selected after careful study of what techniques of given goods are, designation of such techniques, etc. Warning against third parties in respect of infringements must be prepared with due consideration for the above.

(2) Due care must be exercised so descriptions in packages and files will not simply show what the contents are.

(3) Be sure, with respect to books, that a mere title described on them is not held to amount to qualified use of a trademark.

(4) Make sure that use of a trademark on a package, T-shirt, etc. does not end up merely as a design rather than the qualified "trademark."

D. Evidence of Use:

As mentioned in III, D, evidence of use of a registered trademark must show that it is used for the designated goods; the mark in use is identical with the registered trademark; and it serves as a mark identifying the source. In the case of the renewal application for registration and a trial for cancellation of a registered trademark based on non-use, in addition, the "time when it was used" is another element to be shown. Hence, evidence of use to be filed must be specific enough as to when it was prepared and used, as the case may be. In particular, the following will serve as principal checkpoints:

(1) Watch periodically how the registered trademarks are used and see they are tantamount to the "use of the trademark" under the Trademark Law, in preparation for a renewal application for

registration and any trial for cancellation of the registered trademark based on non-use.

(2) Retain data, such as pictures, catalogs and advertisements of products, showing the registered trademark.

(3) With respect to any use not qualified for "use of the registered trademark," correct the manner in which it is used or file an additional application for a registered trademark to make it qualified for the ongoing usage.

(4) With retaining of evidence, check and record time when it was prepared or used, as the case may be.

V. Evidence of Use of Service Mark

1. Introduction of Registration System of Service Mark; Meaning of Use of Service Mark:

(a) The "Law Amending the Trademark Law in Part," Law No. 65, was promulgated in May 2, 1991, including, among others, introduction of the service mark registration system. The date of enforcement, to be prescribed in a governmental ordinance, is scheduled for April 1, 1992.
In Japan, the service mark will also be protected under the Trademark Law. It will be in the areas of renewal application, trial for its cancellation based on non-use, and infringement suits that the service mark will have meaningful use. For the time being, however, application for registration of the same, as discussed in the following, will be of the utmost importance.

(b) The service mark has widely been in actual use in the business world. Registration of such existing service marks will give its owner the priority in protection of its goodwill and be helpful in maintenance of orderly transactions. Supplementary provisions to the Law state to the effect that applications filed within six months of the date of enforcement, based on the exemptive provisions therein, (such applications hereinafter called "exceptional application") will be given priority in registration (such registration hereinafter called "priority registration"). In the event of a plurality of such exceptional applications in conflict, the one best known will be registered and the rest rejected (the applicant so rejected will be entitled to the right of continuous use). The parties who are deemed to be equally well-known will be equally entitled to registration

("double registration").

(c) For the exceptional application, the applicant must file with the Japanese Patent Office a statement setting forth that he desires to be entitled, upon application, to use of the service mark and, within 30 days of the date of application, documents evidencing that:

(1) He has been using the service mark since before the date of application in the course of his business operations; and

(2) Designated services are included in the services rendered.

2. Guideline for Evidence of Use:

(a) With respect to evidence of use of trademarks, the Patent Office has relied on its "Trademark Exami-nation Guideline." The draft text of the Service Mark Examination Guideline recently publicized is quite similar to the "Trademark Examination Guideline" with respect to the evidence of recognizability of the mark as the result of use (Article 3 Paragraph 2), but no mention is made about evidence of use at the time of application for renewal registration presumably because such application will not be made until after 10 years.

(b) Importance of how to prove use of a service mark will lie only in the exceptional application for the time being. Examination guideline for it are expected to be made open in October 1991 when briefing meetings on the law amendment will be held in major cities of Japan.

(c) The following are known as of this writing with respect to the evidence of use:

(i) In the case of the exceptional application, a formal evidence showing that marks applied for are in use for designated services must be filed within 30 days of the date of application.

(ii) In the event of any conflict of your application for registration of a service mark with applications from other parties, evidence of your mark being better known than the others must be produced in order for you to be successful in registration of the same.

(iii) Any mark which does not satisfy the distinguishability requirement must be supported by the method of proof shown in the examination guideline (draft text), in order to be qualified for the distinguishability as the result of the past use.

3. Suggestions for Evidence of Use:

(a) With respect to any service marks in use, evidence of and information on its use must be gathered and put in order. They must be checked to see if they are qualified as evidence of use, if the relationship between the mark and service involved is specific, and if they are specific. Any marks unqualified as such must be corrected.

(b) If it is known that any mark identical or similar to yours is used by any other entity in respect of any identical or similar line of service to yours, secure and put in order such useful evidence and information of such other entity as would be helpful in your producing evidence of yours being better known, particularly as to the duration of use, extent of use (extent of advertisements), etc.

(c) If your service mark in use is likely to lack distinguishability in respect of given lines of your services, collect evidence and information which would be useful to prove any favorable distinguishability of the same as the result of past use.

VI. Conclusion:

In the foregoing, we have studied recent trial and juridical precedents on the use of trademarks. The issues discussed here today are subject to change as the time passes. It will be important for us to be alert to future trends of these precedents. In fact, as industries develop and transform themselves, use of trademarks will give rise to new modes and objects of use which would not have been even conceivable.

The issue of service mark has a lot of unpublicized areas which are very likely to relate to its use. After the service mark registration system is implemented, particular attention will have to be directed to its use.

We sincerely hope our study outlined in the foregoing will help you understand some of the fundamentals of use of the trademark in Japan.

(1) **Subject:** Administration of Intellectual Property in Pro-Patent Age

Subtitle: Evaluation of Inventions

(2) **Date:** 10/1991 (22nd Rochester Convention)

(3) **Source:**

PIPA

Japan

1

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(5) **Keyword:** Invention; Evaluation

(6) **Statutory Provisions:**

JPL 1, JPL 37, JPL 42-2, JPL 42-3, JPL 48-2, JPL 48-3, JPL 48-4

(7) **Abstract:**

What mechanisms do inventions generated in business activities go through for evaluation and patent application? Are the mechanisms through which the inventions are evaluated by companies affected in the recent pro-patent age? With due consideration for these questions, what inventions must companies really pursue for protection under the law in the current pro-patent age?

First, we have classified those inventions for which companies would like to have protection under the Law, according to purposes of such protection and of extent of maturity of the respective technological sectors involved. Then, we have arbitrarily set out certain models of evaluation mechanisms for screening of such inventions. Also, we have prepared and sent to our member companies a questionnaire form, in an attempt to compare our model evaluation mechanisms with the prevailing situation.

The questionnaire recovered, as completed, from the member companies has revealed that, while there are differences between our model mechanisms and the actual situation, the respective companies are evaluating, protecting and making use of their inventions so as to cope with their surroundings.

1. Preface - Why this Theme?

It has been long since the pro-patent age was said to have come in the United States. The meaning and scope of the industrial property have expanded in Japan accordingly. In the case of patent, for example, the role it plays now is far beyond that which used to be.

Such trend is expected to be grow further in not only the United States but Japan, Europe and other countries as well.

In parallel with the pro-patent trend in the United States, careful consideration must be given to the system harmonization movement seen in, among others, WIPO and the tri-polar patent office conference. How are companies coping with such age?

As business activities go on, on the other hand, many inventions take place. All of these inventions are not submitted to the Patent Office for patent protection, however, nor are all of the inventions for which patent applications are filed granted the protection under the Law.

Thus, there must be some methods and criteria under which the inventions so generated are evaluated and screened for patent application and, after an application is filed and as the examination goes on further, evaluated from time to time as to the necessity for the protection under the law.

With consideration being given to circumstances in which the intellectual property right is involved, how are the inventions

evaluated, brought to the Patent Office for patent, and eventually protected under the law? What would be the inventions to be protected by companies? How are the inventions evaluated by companies? We will inquire into these questions.

First, we will classify inventions to be protected according to the purposes for which patent applications are filed and the extent of maturity of given technological sectors, to set out model evaluation mechanisms for screening of inventions.

We will also discuss how differently such inventions are evaluated between the United States and Japan, with due consideration for differences in the statutory system and environments of the two countries.

Further, in an attempt to compare the model evaluation mechanisms so set out with the prevailing situation in which inventions are actually evaluated, we will analyze the mechanisms through which companies actually evaluate their inventions.

2. In General

2-1 What Inventions must Companies Protect for exclusiveness in the market?

The Japanese Patent Law provides in Article 1 to the effect that its purpose is to encourage invention and contribute to development of industries, by protection and utilization thereof. That means, the ultimate purpose of the Patent Law is to develop industries and scientific technology.

From the standpoint of companies, the purpose for which they

file a patent application is to own inventions exclusively by way of patent. The Patent Office provides the person who has applied for a novel invention earlier than others, with the exclusive right to own and use it. As the patent is thus an exclusive right, it is one of the most effective measures for protection of inventions. It is simply because of the exclusive right available from them that companies apply for patents with respect to those inventions for which they desire protection.

The patent right so obtained is made use of by companies as means of conducting their business activities. Based on the fundamental approaches outlined above, we will classify and examine the inventions to be protected.

2-1-1 Classification of Inventions by Purposes:

(1) Exclusiveness in the Market:

Business entities try to secure an advantageous position in the market, by supplying products of better quality at lower prices and in more quantities than their competitors. In an attempt to put more competitive products in the market, companies try to differentiate their products from those of their competitors. The products so differentiated, however, can no longer be advantageous in the market if they are copied by others.

One of the most effective methods by which companies could maintain their advantageousness of their own products in a market is to protect them under the patent, by which they can prevent their competitors from imitating their own products and maintain

their competitiveness in the market.

In other words, companies which have developed novel technology apply for patent of their inventions which are the achievements thereof. Such applications for patent become the basic patent in their respective industrial sectors to secure their advantageousness in their industrial sectors.

It is difficult to define what the basic invention is in commonly understandable terms. A minor improvement may amount even to a basic invention or to a mere improvement invention, depending on the case. Sometimes, a basic invention would relate to the basic function of a system of a very huge size.

For the purpose of our discussion, the basic invention will be that invention of basic function of products in a given technological sector, with broad claims.

In order to have the technological exclusiveness in the market, it is essential that as a broader area of the technological sector involved as possible be covered by patents. There still is a question, in this connection, as to whether the basic patent is sufficient enough to cover the whole area of that technological sector.

In that a single patent is subject to a limit as to the scope of coverage, it is very seldom that a single patent could cover the achievements of development by or products of a company, in their entirety. In other words, the basic patent would not be sufficient enough in order for a given technological sector to be covered. Acquisition of a basic patent still have a

possibility of its owner being prevented from maintaining its advantageousness in the market, if an improvement patent or patents required are held by and not available from their competitors.

For this reason, companies will find it necessary to have peripheral patents in addition to the basic patent. In order to secure the freedom of their own activities, it might also be necessary to forecast similar technology which is likely to be worked by not only themselves but their competitors as well and to file as many patent applications with the Patent Office as possible to maintain their own patent network.

(2) Having Patents on Competitive Inventions to Prepare for Cross License:

The patent may also be used to defend exercise by competitor's of their patent rights.

An agreement under which separate companies mutually license their own patents is generally called cross license. If you have an effective patent, you can make use of inventions your competitors have, by way of a cross license agreement entered into with them. It is said recently that technological development requires a substantial amount of funds and manpower. Depending on circumstances, it may be to your advantage to make use of the technology of your competitors under a cross license agreement entered into, rather than to carry out all technological development by yourself.

Inventions are sometimes protected under the law to prepare

for any infringement warning from your competitors or, rather on a positive basis, to prepare for cross license you may want to enter into with your competitors, purpose being to secure the freedom of your own activities.

A typical example of the above would be a case in which, when moving into a technological sector of one of your competitors who holds basic patents of its own in that sector, you might want to obtain some of them on your own foot to prepare for an attack with it by way of its basic right (cross license with a prior company).

Also, if there is any company competing with you in respect of the same technological sector, you might want to build a patent network to the same extent as that competitor has, to restrain it from attacking you. If it does attack you, then you could enter into a cross license agreement with it by virtue of your own patent network so as to minimize damage you may sustain (cross license with competitors).

(3) Patents for Licensing:

We have referred to evaluation of inventions in (2) above for the purpose of cross licensing with any patent which may exist as something basic on the part of competitors. Contrary to it, patents may also be obtained on inventions principally for the purpose of royalty income under license agreements with others.

As mentioned previously, a considerable amount of resources

would be required for research of novel technology. Business entities may recover their investments, by licensing for royalty the patent rights obtained as the result of the investments for development of technology.

Thus, the royalty income from the licensing of your own patents would be a sort of profit available from the technology so developed. If you want to derive your profit solely from your own manufacturing and sales mechanisms, you would be required to provide a substantial amount of resources as well as investments, at your own risk commensurate therewith. It will be a means of securing profit for companies to raise income of the licensing of your patents.

(4) Patent Application for Defense:

Inventions generated in the invention divisions of companies could include those for exclusiveness in the market, cross licensing, etc. which would not be described as positive "weapons." Those inventions, once patented by your competitors, would serve to restrict your own freedom of activities. Thus, there will also be the necessity for applying for patents for defense of your own products rather than the "weapons."

You may prevent your competitors from patenting such inventions of yours if you simply disclose them publicly, not necessarily filing your own applications for patents. From the viewpoint of protection of your own technology and products, however, you should probably not only prevent your competitors from obtaining their patents but protect your own technology and

products positively under your own patents.

Thus, we consider the criteria by which you would apply for a patent for safeguarding your invention would probably something like the following:

You would probably apply for a patent for your own safeguard if the value of it is not high enough as to permit you to exercise your right as patent owner against your competitors but, once your competitor become a patentee, your activities are very likely to be restricted. Such situation would arise if, for instance:

The size of your reduction to practice is large; or

Such invention being rather a simple technique, you do not have appropriate data available for challenging any patent granted to your competitor;

2-1-2 Classifications by Maturity of Technological Sectors:

Maturity of technology generally varies with industrial sectors in which it is employed. In sectors in which technology has fully grown up, it is unlikely that a novel, basic invention takes place. Conversely, in premature sectors where technology employed is young, many inventions would be made. Would it be always to your advantage to apply for a patent for each of such invention regardless of the maturity status of the industrial sector in which you are? The answer would probably be not always "No." In the following, we will discuss what inventions a company should get patents for, according to the extent of maturity of technological sectors:

(1) Sectors in which technology is underdeveloped:

In sectors where you as well as your competitors are underdeveloped, there would be instances where novel products are developed or, at least, research is going on for possible participation therein.

In such sectors, patents usually do not exist. Thus, any company which has successfully developed and secured useful patents prior to its competitors would be free to carry out its business strategy at its own will.

For example, If any competitor moves into the market, then that prior company would be able to exclude it from the market by exercising its patent right or to restrain its competitors in the market by exercising its right against the newly participating competitors. In underdeveloped sectors, therefore, you can have such important role played by your patents, as would range from complete exclusiveness in the market after your participation in the market to exercise of business leadership there.

The above effect would not be expected, however, if the patents so obtained fail to serve as outlined above. Thus, it will become important for you to obtain patents in such manner as would make it difficult for any subsequent participants to get rid of infringements of your patents.

Provision of the patent network, consisting of the basic patent and peripheral patents as discussed earlier would also be helpful.

(2) Sectors under control of a Pioneer Company:

In a sector which is under the control of a pioneer company, that pioneer normally has the basic patent. In cases like this, subsequent companies could be forced to become its licensees or otherwise withdraw from the market.

In such "follow-up" type business pursuit, what would it mean to secure patents? Also, what kinds of patents should a subsequent company secure?

Patents of subsequent companies would probably have significant meaning, if any, in the following instances:

(a) It will serve to soften up, in favor of that subsequent company, terms and conditions of the license agreement to be entered into with the prior company. In other words, the subsequent company can, by exercising its own patents against the prior company, weaken the restraint by the prior company. The subsequent companies will find it necessary to secure such measures by which the prior company would be forced to obtain patents of the subsequent companies in exchange for the basic patent the prior entity has.

(b) It will help that subsequent company to exercise its leadership among further subsequent participants. That subsequent company can, by exercising its own patent right against the further subsequent participants, grant its licenses, have the leadership in the market and otherwise make use of its own patent in its business activities.

In cases like the above, the subsequent company will find it

necessary for its own protection to discover and get patents on such technology, threading its own way through the established patent network of the prior company, as its further subsequent companies will need to have.

(3) Sectors under Development by a Plurality of Companies in Competition:

Once a new technological sector takes place, no other companies usually involve themselves in similar developments in that sector in competition. In technological sectors like this, during an early part of their competitive operations, no companies usually have their needed patents granted yet. They develop novel technology of their own and, as their achievements come out, apply for patents one after another.

Decisively overwhelming patents usually do not exist on the part of any of these competing companies. Thus, their business activities would not be affected by patents they have.

Once such a patent is granted to any one of them in due course as will have to be used by all other competitors in that sector, the balance of competition among them will be destroyed.

(a) The company which has secured the powerful patent will try to be exclusive in the market, by use of it.

(b) The rest of the competing companies will hasten filing of their patent applications to protect their own position against it. If no competitive patents are available, they might even be forced to withdraw from the market.

(c) Even though no patent may be exercised in in some situation, in expectation of outcome of any pending applications filed by competitors, the rest of the competing companies will find it necessary for their own protection at least to get rid of the business risks developing therefrom.

In business sectors like this, how should patents be applied for? Must they apply for any and every patent available? What kinds of patents should be applied for?

Once you obtain a strong patent before the rest of your competitors, you will be in a position to exercise your right under it against them even to exclude their products from the market. If your products are so excluded from the market, your research and development activities will also be stopped. As a result, it may even happen that your pending patent applications become shelved. A patent must be obtained by all means before your competitors. Thus, it will be a task for patent strategy to deprive your competitors of their freedom of business operations at an earliest convenience, to secure your patents before your competitors, and make your competitors subject to business risks.

How about the substance of patents? A patent which cannot give damage to your competitors is meaningless. If a patent which you obtain before your competitors do could easily be got rid of by them, your competitors, being in the course of development of products, would be able to modify their products to get around your patent at small risk.

Then, what would be the invention which cannot be got rid of

easily by your competitors? The following would probably represent some of them:

(a) Inventions of basic technological ideas which .LM21could affect functions, performance and/or property to be provided by or contained in products of the given technological sector:
An invention which, if modified by your competitors to got around of your technological idea employed in it, will end up only with an either entirely different or otherwise conventional product will give heavy damage to them.

(b) Inventions of Practically Effective Use:
It is said that inventions on a rather simple method or construction oftentimes have more practical effect than those made by engineers of the invention division. Such inventions are very likely to be adopted by your competitors. Also, inventions of great practical use are very likely to be retained, and it would be unrealistic to try to get around of them.
However, if an invention, however effective -- for example, however superior its property may be, is extremely complicated with respect to its composition or unpractical, it will be no use to try to get a patent granted in a hurry.

Patents like the above will exactly give damage to your competitors.

How soon you get patents on inventions of basic technological ideas or with great practical effect in respect of purported products will serve as the key for your holding a leading position in competing in a new sector of business.

(4) Sectors in which Technological Development has Almost been Matured:

In business sectors in which technological development has almost grown up, individual companies have a large number of patents which are more or less different from their competitors. Each company will have specific composition of its own patents in which inventions covered would be tantamount only to improvements of internal construction.

Companies competing in a sector like the above are very likely to make use of patents of their competitors. And, a single product oftentimes involves many patents of competitors. Under such circumstances, if a company attacks another in respect of a patent, there will be a counterattack, leading possibly to a patent war.

It is seldom, nevertheless, that a patent war takes place at once. Decision-making for a patent dispute is based on the balance between the royalty you owe to your competitors and the royalty your competitors owe you.

Royalty is calculated usually on an actual result basis. Thus, it will be one of the ways by which you can improve your position in terms of the balance of the royalties payable and receivable, to keep patents on models which bring about more royalty income.

In the event of exercising a number of patents, it is considered seldom that such patents are exercised separately with respect to a single product. Normally, they are evaluated as a

"group of inventions," on which basis a royalty rate is determined. Or, a royalty rate is individually set up for each of separate basic patents and royalty rates for other patents are agreed upon as not exceeding so much percentage in the aggregate, thus incorporating an approach on the basis of a conception of a "group of inventions."

However many patents you attack your competitor with, your royalty income from a single model of product is subject to a maximum limit. If you want to get a large amount of royalty with many patents used, however, the point will be how to cover as many models of products with them. If each patent relates to different models, the scope of application of royalties due you will be extended.

Obtaining of a new patent in a fully matured sector of business will benefit you to the extent that it will improve your position in the balance of royalty payments with your competitors. Thus, the size of reduction to practice will be the decisive factor.

The foregoing may be summarized into a table shown below. Strategies illustrated there are considered common regardless of industrial sectors and of nationalities. It is hoped that inventions generated be evaluated so as to cope with condition of business and strategies available and also to permit patent application on an efficient basis.

STATUSES OF DEVELOPMENT, PATENT ENVIRONMENTS

AND EFFECTS OF PATENT ACQUISITION

Status of Development	Invention Environment	Effect of Patent Application	Highly Useful Patents
1 Underdeveloped	Substantially no existent patents.	Exclusiveness in the market with self-developed technology	1 Basic patents 2 Highly practical patents
2 Led only by a pioneer company	Basic patents in existence.	Soften up risks. Control subsequent participants.	1 Those peripheral patents in which prior company would be interested (for great practical use) 2 Patents subsequent participants must use
3 Developed by participants in competition	Patent applications of individual companies pending	Lead to taking of the leadership.	1 Patents difficult to get around 2 Highly useful practical patents
4 Matured technology	Many patents owned by participants	Balance of royalty payments	1 Patents worked on a large scale 2 Patents used in diversified classes of models rather than a single class of model

2-2 Evaluation of Inventions to Screen Patents to be Made Proprietary:

2-2-1 Evaluation of Inventions and Corporate Policy:

(1) Evaluation of Inventions:

Patents acquired by companies are not meaningful unless or until usefully made use of. Companies make use of patents and the patent system to make their business activities advantageous. In order to effectively make use of patents, it is necessary to ascertain the value each of such patents has. The value of a patent must be ascertained from the viewpoint of how much it can make its business activities more favorable with it. In order to obtain a more worthy patent, an invention of higher quality be made. In other words, in order to make use of a patent in its business activities, a company must evaluate the meaningfulness of respective inventions underlying its business activities.

(2) Evaluation of Inventions and Corporate Policy:

The evaluation by the company of an invention serves as the basis of the corporate decision as to not only when it should apply for a patent but whether it should maintain that proprietary right when it applies for examination, when it receives rejection, or when it applies for a foreign patent as well. Also, from the viewpoint that an invention is the achievements of its research and development activities, it may be fed back to the research and development department to make it available for subsequent research and development projects and corporate strategies.

The evaluation of an invention so obtained will become the basis of administration and strategies of patents in the company. That is, the evaluation made by a company of an invention will relate, directly and indirectly, with its corporate policy of how to make use of the patent to be granted to it. When evaluating an invention, attention will have to be paid to these matters as well.

2-2-2 Evaluation Mechanisms of Invention to be Made Proprietary:

An invention is evaluated, from time to time since it is generated, as to its nature and value. What evaluation mechanisms serve in a company to select inventions falling under classifications (1) through (4) of the purposes of patent application as referred to in 2-1-1?

Here, we will analyze the invention evaluation mechanisms according to various elements.

(1) Organization (Where) and Who Evaluates :

A company has a number of departments consisting of a research and development department dedicated to new technology, a department in which the developed technology is incorporated into products, the manufacture department and many others, in addition to the patent department.

The greatest role the patent plays is to secure and maintain the advantageous position of the company in the market, to

protect its own technology, and to obtain cross licenses, all of which have great impact on its business activities. Hence, the value of an invention must be ascertained by not only the patent department but these other departments involved.

A company is generally supposed to conduct the following activities with respect to patent:

(i) Invention

(ii) Evaluation

(iii) Obtaining and maintenance of patents

(iv) Enforcement of patent right

Depending on companies, the invention department or patent department may be conducting other activities together.

Invention activities would normally by conducted by the research and development department of a given product. Also, in some companies, the research and development department conducts the evaluation activities as well. In some other companies, the obtaining and maintenance of patents are jointly controlled by a legal department, such as legal division or license division, and a business department.

From the viewpoint of evaluation of license applications, for the purpose of efficient application for patent, the research and development department must be fully aware of the status of business (how matured the technology sector is) and future trend of technology. Otherwise, the company would not be said to be on the right track and would produce many inefficient and useless inventions.

The department in charge of evaluation and/or obtaining and

maintenance of patents (through patentability) and the department in charge of enforcement of patents (through its activities as such) will have to ascertain movements of competitors and the extent of maturity of their industrial sector, and to feed the qualitative and quantitative information, as required, back to interested departments for future patent application.

Inventions are in many instances evaluated by a plurality of departments, as previously mentioned. In this case, different departments involved could place emphases on different items of evaluations. Which department has the ultimate power of decision will depend on the patent administration system of respective companies.

Who is supposed to make an evaluation of an invention? Or, rather, who would be most qualified for evaluation of an invention?

Generally speaking, an inventor who is directly in charge of research and development and/or designing of an invention is likely to either overestimate or underestimate it and, in the event of a worse case, is unable to evaluate it. It may be unavoidable, therefore, that, in view of recent specialization of work, persons in direct charge of an invention are oftentimes good at particulars but not at main, principal issues.

With the foregoing in mind, it would be necessary that an invention be evaluated from different viewpoints by a plurality of departments and it would be desirous that the final conclusion be made subject to consultation among all departments involved.

In particular, it would be desirous that technological aspects of an invention be evaluated by the invention department; economic aspects represented by value of an invention as goods and manufacturing cost, by the department in charge of the project involved; and particulars of the proprietary right by the patent department, subject to general discussion among the departments involved as to the final decision.

(2) When to Evaluate:

When to evaluate an invention is closely related with the patent system of respective countries.

Under the patent system, an applicant for patent can abondan his invention at any time. It means that an invention may be evaluated freely from time to time. It will be the general practice, however, that it is evaluated at each of the steps ranging between the occurrence of an invention and the maturity of the patent.

Japan adopts the first-to-file principle. Hence, it is advisable that an application be filed promptly after an invention takes place. Thereafter, the invention is expected to be evaluated at many points, as at the times of request for examination, various actions taken in the course of examination, and payment of patent maintenance fee.

Once a valuation of an invention is made, it is economical from the patent management viewpoint as well to make use of it consecutively thereafter. It is likely, however, that, as the time passes, surroundings of the invention change and standards

for and items of evaluation of the invention change accordingly.

In such case, would there be any timing most suitable for evaluation?

As far as economical efficiency is concerned, it would be most desirable to finish screening at the very beginning when deciding which inventions to apply for patent and which not. Exact future trend being unpredictable at that point because of uncertainty of data available then, however, it even happens sometimes that those inventions deemed necessary at the cnception are found useless at a later date.

The Japanese patent system has a number of such procedural steps at which the invention is evaluated, as are represented by multiclaim system, priority domestic application principle, and request for examination of patent application. The procedural steps at which a patent application may be evaluated, with comments on each, are cited below:

(i) Multiclaim system of Claims (Article 37 of the Patent Law)
It has become possible to consolidate a plurality of mutually related applications into a single application, at the stage at which you decide whether to apply for an application.
Thus, at the stage at which you make a decision on the filing of an application, you may review and evaluate a series of your applications which have come out of development of your products, with due consideration for the selection which you wish to make in applying for a patent. In this case, it would also be

possible to follow a strategic technique that could meet the status of your business as previously mentioned.

(ii) Priority Domestic Application (Article 42-2 of the Patent Law):

With respect to any inventions which have specific relationship with an invention for which a domestic application has been filed, you are entitled to claim a priority within one year of that prior application (provided you are the applicant for all of them).

It follows that you will have a one year grace period in respect of any inventions which could not be considered at the stage of the parent application. Taking this opportunity, you may evaluate the relationship between the prior, parent application and the additional inventions and the necessity for patent acquisition for the latter.

(iii) Request for Examination (Article 48-2 through -4) of the Patent Law):

An application for patent has a 7 year period (and an application for utility model 4 years instead), within which a request for examination must be made, if you really need a patent (or utility model) right.

Some of companies request examination of all of their applications at the very inception thereof. Making use of this system, however, many companies at a later date evaluate and screen their applications previously filed.

Applicants have ample time within which to examine and evaluate, among others, profitability, future prospect, restrains on competitors in the industrial sector.

(iv) Other Procedural Steps:

(a) While in the Course of Examination (Rejection, Trial Decision; Opposition):

A patent application is also evaluated at various stages of examination. Particularly where it has patentability, you can demand a trial or apply for modification or division, with consideration for protection of business of your own products and restraints on competitors.

The application for modification is restricted to one time while at the stage of examination. An application for division may be made only when a procedural amendment may be made.

(b) Maintenance of Registration:

Once a patent is registered, the applicant must pay the maintenance fee, subject to a table shown below. The annual maintenance fee is increased every three years. Registration, if maintained until the maturity of the patent, will cost about ¥750,000 in the aggregate each invention. For economy, it is essential for a patent owner to screen the patent to be maintained, with due consideration for valuation thereof.

Annual Maintenance Fee

1st-3rd	4th-6th	7th-9th	10th-12th	13th-15th
¥30,900	36,000	32,000	64,000	128,000

(v) Opportunities of Evaluation:

When viewed on a time series basis, the opportunities of evaluation of a patent application as discussed in the foregoing may be listed, as follows:

i. At the time of deciding whether to file a domestic application.

ii. At the time of filing a priority domestic application.

iii. At the time of requesting examination.

iv. At the respective times of each amendment, demand for trial decision and application for modification in the course of examination.

v. At the respective due dates of the maintenance fee.

					Rejection					Publication	Registration	
A	- 1 -	A	- 2 -	A	- 3 -	A	- P -	A	- 4 -	A	- 4 -	A	- P -	- P -

Inventive idea	Application for patent	Priority domestic application	Request for examination	Application for modification	Demand for Trial Decision

- P	A	P	A	P	A	

Payment of maintenance fee	Maturity of Patent

"A" denotes action by applicant.
"P" denotes action by Pat. Off.

(3) How to Evaluate:

As previously mentioned, an invention is evaluated by a number of different departments with respect to not only patentability but marketability, profitability, application filing cost and other elements. Thus, an invention is evaluated as to its novelty, non-obviousness, marketability, business project, management strategies as well.

On what basis should inventions be evaluated? To put it in other words, how many evaluation elements must an applicant for patent provide in order for him to evaluate it properly and objectively?

The evaluation of an invention means for its owner to determine how it would be useful for its business activities, with due consideration for the purpose for which he wants to obtain a patent and its matureness, as mentioned in Paragraph 2-1. "What Inventions Must Companies have Protection for under the Law."

Also, from the viewpoint that an invention is an achievement of research and development activities, the evaluation of an invention represents the evaluation of the research and development activities. Elements of evaluation of an invention must be capable of properly judging its value, with due consideration for the purposes for which it is to be obtained and movements prevailing in and out of the company.

Hopefully, needless to say, evaluation of an invention must be completed by the time an application for it is filed. Actually, it sometimes occurs that uncertain factors existing at

the time of the application prevent an accurate judgment from being made. Such uncertain factors would become realistic and known as the time passes, making it another important element to determine which inventions are really needed and which not. In connection with the times at which evaluations of an invention are made, as discussed previously, what elements of evaluation would principally be emphasized at each stage of the evaluation? The following resume will serve to answer this question:

Evaluation Elements to be Emphasized at Each Stage of Evaluation

At the time of filing a domestic application:

Uncertain elements exist. The most you could do would be to select which inventions you should file an application for and which not.

At the time of filing a foreign application:

Same as above.

At the time of requesting examination of the application:

Uncertain elements will become realistic and specific one after another, and must be put under control (particularly with respect to reduction to practice going on at your own company as well as competitors).

At the time of requesting examination of any foreign application:

Same as above.

In the course of examination of the application:

1. Uncertain elements (particularly as to whether a patent is available) must be monitored carefully.
2. Forecast of product technology and any change in the scale of

reduction to practice, if needed, must be carefully monitored.

At the time of registration of patent:

Forecast of product technology and any change in the scale of reduction to practice, if needed, must be carefully monitored.

At the time of renewing maintenance:

Same as above.

2-2-3 Models of Evaluation Mechanisms

So far, we have discussed the factors that would affect evaluation of an invention. It is rare that each of these factors exist alone. They are oftentimes related each other to build an evaluation mechanism of an invention. Here, we will review what we have discussed so far and discuss certain models of evaluation mechanisms of inventions in the following.

Table 1, as given hereinafter, will show the relationship between the elements of evaluation of an invention and 2-1-1 "Classifications of Inventions by Purposes" of 2-1 "What Inventions must Companies Protect for Exclusiveness," as they relate to the respective models.

Codes "P," "N," and "-" shown in these Tables are intended to stand for the respective meanings given below:

The "P" stands for Priority evaluation element to be satisfied for the given purpose, without which you cannot file an application for patent for the given purpose. The "N" means that it is a Normal level evaluation element to be satisfied for the given purpose. You may apply for a patent for the given purpose, if the evaluation element is marked with "N" or, depending on the

purpose of the application as shown in the Table, even when you are not sure whether the evaluation element marked with "N" is satisfied. The above may be summarized, as follows:.

	If the given purpose under the "Classifications by Purposes" columns is		
	Satisfied	Unknown whether satisfied	Unsatisfied
P	OK to apply	No	No
N	OK to apply	OK to apply	No

The code "-" represents that the evaluation element marked with it has nothing to do with the given purpose. An evaluation element will have different weight, depending on the purpose of application filing.

Table 2 shows the relationship between respective evaluation elements and the timing and departments involved of the evaluation. The figures, "1" through "7", under the "Evaluation Timing" column denote the respective timing shown below:

1: Filing a domestic application.

2: Filing a foreign application.

3: Requesting examination (domestic).

4: Requesting examination (foreign).

5: In the course of examination.

6: Registering patent.

7: Reviewing the patent data to determine whether to renew the patent right.

The above will mean that the respective evaluation elements

shown left in the Table will be checked according to the evaluation timing shown with "1" through "7," which, if shown in bold type, will show the timing at which the respective evaluation elements will emphatically be checked.

The "Evaluating Departments" in the Table show a department or departments responsible for the evaluation. In the event of a plurality of such departments, the department first named would usually be the one responsible for evaluation of an invention as leader.

These models may be described to show, in short, that an invention should preferably be evaluated jointly on a mutual consultation basis by and between the invention department, project planning department and patent department, each representing technological aspect, economical aspect and patent right aspect respectively, and that such evaluation should be made at each of the different procedural stages under the patent system to clarify and determine uncertain elements in accordance with the purpose of patent acquisition.

It might be worthwhile to add that, to cope with the ever changing circumstances involving patents as the time passes, a systematic evaluation system will be of great help, under which system, at the respective evaluation stages.

Table 1

Evaluation elements	Exclusiveness	Cross License	Royalty	Defense	Company's	Competitors'
Patentability	P	P/P	P	???		N
Technol. excellence		N/-		-	N	P
Exclusiveness (market controllability)	P	-/-				N
Restraints on competitors	-	P/P	N			
Sizable effects	N	N/-	N	-		
Difficulty for practice	N	-/-	No			
(Future prospect of technology)	N	N/???	P(OR)	-	N	N
Life of invention	N	-/-	N			
Unreplaceableness (difficulty in getting around the patent)	P	N/-	N			
Self execution, present and future prospects	N	-/-	-	P/(OR)	N	N
Easiness of identifying infringement	P	N/-	P			
Uniqueness, originality		-/-			P	P
Expected royalty income		P/???	P			
Use of patent ratio	N	N/???	N		N	N
Possible licensing to competitors	N	P/P	P(OR)	P/(OR)		

Table 2

Evaluation elements	Departments involved	Evaluation timing
Patentability	Pat./Inv.	1, 2, 3, 4, 5
Technol. excellence	Proj. Plan./ Inv.	1, 2, 3, 4, 5, 6, 7
Exclusiveness (market controllability)	Proj. Plan.	1, 2, 3, 4, 5, 6
Restraints on competitors	Proj. Plan.	1, 2, 3, 4, 5, 6
Sizable effects	Inv.	1, 2, 3, 4, 5
Difficulty for practice	Inv./Proj. Plan.	1, 2, 3, 4
(Future prospect of technology)	Proj. Plan./ Inv.	1, 2, 3, 4, 5, 6, 7
Life of invention	Proj. Plan./ Inv.	1, 2, 3, 4, 5, 6, 7
Unreplaceableness (difficulty in getting around the patent)	Inv., Proj. Plan., Patent	1, 2, 3, 4
Self execution, present and future prospect	Proj. Plan./ Inv.	1, 2, 3, 4, 5, 6, 7
Easiness of identifying infringements	Patent, Inv.	1, 2, 3, 4, 5
Uniqueness, originality	Patent, Proj. Plan.	1, 2
Expected royalty income	Patent, Proj. Plan.	1, 2, 3, 6
Use of patent ratio	Proj. Plan., Inv.	1, 2, 3, 6
Possible licensing to competitors	Proj. Plan., Sales	1, 2, 3, 4

3. Differences in Evaluation between U.S. and Japan:

As the nation differs from another, legal environments of patent as well as economic circumstances vary. Thus, these differences would affect also corporate policies of the two countries as to patent. In the following, we will discuss differences in evaluation, from the environmental aspect.

3-1 Background; Differences in Legal Environments and Patent Acquisition Policy:

The United States is said to be a litigious community. The area of patent is no exception. As compared with those in Japan, numbers of patent infringement cases and patent license lawsuits in the United States are many. Not only the cases between Japanese companies and U.S. companies but those between U.S. companies are extremely many.

Recently, relating to patent is increasing in Japan. In many of them, the other party is an individual or non-manufacturer, and patent disputes between domestic makers are few. This would indicate that Japanese makers are dealing with each other on unlitigeous terms at least on the surface.

The patent infringement cases in the United States usually provide the discovery stage, at which full documents and disclosure of infringing products are obtained from the infringing party.

In the case of lawsuits in Japan, on the other hand, it is up to the plaintiff to produce the evidence of infringement. Thus, in such cases in which it is difficult to identify infringements from outside, the plaintiff has no other means of

identifying the infringement facts than relying on any information furnished by the infringing party. If satisfactory information is not available from the infringing party, you would be forced to give it up.

This also leads to the fact that there are few law suits in Japan while there are many in the United States and to another fact that Japanese companies are unlitigeous among themselves as far as it appears on the surface.

Based on these differences, we will make an analytical study of the evaluation elements.

With respect to the corporate policy for the types of patents to be acquired, legal environments in a litigious community would affect the corporate policy for patent acquisition, in that such community is conditioned upon claim of ownership and exercise of rights under which the patent acquisition policy would be developed and determined accordingly. Thus, the corporate policy for patent acquisition would be more strategic and aggressive so as to match their way of doing business. Depending on situation, there could be a corporate policy for complete destruction of a competing company or companies.

Although it may differ more or less depending on the size of operation or on the technological sector, there seem to be an idea prevailing in the U.S. corporations that no attempts should be made for acquisition of the exclusive right unless they are very useful in the case of a dispute.

In the above sense, an invention for which a patent applica-

tion should be filed is likely to be evaluated in the United States from the viewpoint of whether the patent, if granted, could be so strong as to vitally affect your competitors instantly and to provide basic functions or performance of the product so your competitors would find it difficult to get around of it.

In Japan, on the other hand, the way of doing business on unlitigeous terms with competitors have two types.

One would be the cases where companies involved do not rely on position or force relations among themselves and are friendly each other. The other would be the cases in which each will make its own position specific under the balance of power and, as a result, work with the rest under some out-of-court settlement arrangements.

In the former cases in which companies are on friendly terms, would it benefit a company to get a patent in a mutually competitive area. The patent application in this case would be of less value for the competition purposes and used for rather passive purposes as in evaluation of development products. If such companies have no intention of exercising it, it needs not be an exclusive right and the acquisition of a patent would be quite meaningless.

Generally speaking, there seem to be more of the latter cases in which companies work with each other on an unlitigeous basis, under the balance of power among themselves. Such cases would be further classified into the "open type" under which each company discloses its own patents to the other and enters into a license agreement under balance of power so made specific, and

the "closed type" under which each company compares and evaluates the balance of patents within its organization and does not exercise its patents directly against others, just mutually restraining in terms of objective results.

Under the open type collaboration, either party, if the patent power is well balanced between both, or a party in a stronger position aggressively, if the patent power is ill balanced, will demand the other that they make their positions clear and enter into cross license of patents on an individual patent or group of patents basis. Thus, under the open type, it will be necessary to make their infringements also specific mutually. In cases like this, patents to be obtained by a company will have to be those infringements of which may be identified by it and which would be of value to the other party. Also, an invention would be worth acquiring if, although the value of a license arrangement thereunder should not necessarily be so great as to exclude the other party completely and, although the other party might take some measures to get around it, use of that invention would improve products. The open type climate seems to be under consideration by some Japanese companies and by many American companies.

In the case of the closed type company, it does not directly exercise its patent against the other, without directly contacting the other party. It simply evaluates the balance of patent power internally. Thus, it is unavoidable that arbitrary assumption takes place.

Thus, the closed type companies are likely to be involved in mutual evaluation based on assumed figures. For example, their evaluations oftentimes end up with comparison of numbers of patent applications filed and patents registered on the basis of arbitrary assumption that since a company is working an invention the other party should likewise be doing the same thing, rather than ascertaining infringements by the other party and making evaluation on that basis.

As a result, a closed-type company will find it necessary to file a patent application, licensing value of which is not fully ascertained, based on a simple assumption that there may be some licensing value.

As long as they are mutually competitors, the closed-type companies would be concerned with the number of patent applications filed simply to lay restraints on the other, rather than with what the exclusive right sought therein are. Although disputes may be few in number, in a sense, useless tension is found among themselves.

It is expected that the administration of intellectual property right by American companies is closely related to their management strategies. In the light of their corporate policy under which patent rights they have are tantamount to their exclusive right or, if you put it strongly, those patent rights are nothing unless they serve to help that company exclusive in the market, their patent applications for the purpose of cross license, license or defense, as referred to in 2-2-3, are expected to be extremely few.

Thus, we are under the impression that American companies place their emphasis on the exclusiveness (market controllability), future possibilities of reduction to practice, unreplaceability, and status of self execution.

The table given below shows the summary of the foregoing, from which it will be noted that the type of patent to be obtained varies between Japan and the U.S., as business environments differ.

Type of environment	Patents	Patents used for	Value of patent for license purpose	Expected to be prevaling in
+ litigious	Absolutely necessary.	Exclusion of competitors and licensing aggressively.	High	U.S.
Unlitigious: open	Absolutely necessary.	Cross licensing aggressively.	High	U.S. and Japan
Unlitigeous: closed	Necessary	Evaluation of balance with competitors, rather passively.	Not necessarily high.	Japan
Unlitigeous:	---	Evaluation of own technology, rather passively.	Not necessarily high.	

3-2 Comparison of Evaluating Departments and Who Evaluates:

In the United States, ideas of the top management are exactly reflected on the activities of the patent department and evaluation activities of a company in respect of patents of a

company are considered to reflect management strategies of that company directly. Also, in the United States, an invention is considered to have been fully evaluated by its inventor during the process from the occurrence of the invention to the actual reduction to practice.

When an invention is brought to the patent department, the personnel in charge of patent are familiar with technology, products and corporate policy, presumably because the personnel evaluate it personally in many cases. Also, we hear that collaboration between the invention department and the patent department is in effect from an early stage of the research and development to bring up inventions as powerful "weapon."

In the case of American companies, the role played by each individual is specific as compared with Japanese companies, thus a division or individual is supposed to have full responsibility for evaluation of a given patent. In an American company, for instance, a specific lawyer collects all data regarding evaluation elements, with which data he continues evaluating an invention. Possibly, some of American companies have such patent experts (usually, in-house patent lawyers) for each of their intra-company units and, based on their recommendations, the patent counsel makes a decision on application for patent.

Of course, a full-time evaluation committee may be appointed wherever appropriate as an organization in-between.

Based on the foregoing, the ultimate invention evaluating party of most American companies would be classified into four

types as shown below. In that it would probably be difficult for the patent department alone to make a proper judgment of whether a given invention would commercially be important, it is supposed that many companies evaluate inventions through a Type B patent committee.

Types	Evaluation made by:
A	Patent department or patent-attorney.
B1	Patent committee on a prior evaluation basis.
B2	Patent committee on a direct evaluation basis.
C	Top executive officer, based on recommendation of the patent department.
D	Top executive officer at his own initiative.

In many of the type B companies, the top executive officer joins the evaluation committee as regular member, thus making the decision of the committee closely related to the corporate strategy. Top executives of technological and sales departments in addition to the patent department also join the committee as regular members. It will indicate that evaluation of an invention is associated with not only the patent acquisition purpose but corporate strategy as well.

In Japan, on the other hand, few companies have grown up with the patent activities in the center. For this reason, the patent department, even when directly supervised by the top management, does not have many opportunities of participating in the top management with respect to patent activities, with the result

that patent activities are not always reflected on the top management decisions.

In the case of Japanese companies, in addition, the role of individuals is not made so specific as in the American companies. The ultimate decision maker for evaluation does not seem always a manager of a department, but a decision maker for each of evaluation elements seem in many instances to evaluate each evaluation element for which he is responsible and the ultimate decision maker, after having collected opinions of respective departments, picks up an average opinion out of them as the ultimate decision.

Thus, in Japan, many cases are ultimately decided by the corporate manager after evaluations made by a number of participating members, with the aim of arriving at the final decision as objectively as possible. For this reason, use of an evaluation sheet will be appropriate.

3-3 Timing of Evaluation:

It is true with the United States that, once applied for patent, an invention may be abandoned at any time after it takes place and before the patent so obtained ceases to be in force. That is, in principle, it may be evaluated at any time.

In reality, however, an invention appears to be evaluated at each stage of procedure after it takes place and before the patent ceases to be in force, in the same manner as in Japan, however, subject to different timing of evaluations which would be applicable to the U.S. patent system.

The basic differences of timing of evaluation between the United States and Japan would probably be represented by two, consisting of the fact that the U.S. patent system adopts the first-to-invent system and the fact that there is no request for examination in the United States.

Thus, we would presume that the U.S. patent system provides ample time between the birth of an invention and the filing of patent application, within which to make evaluation from technological, economical and patent angles. Based on this, inventions in U.S. companies are considered to be evaluated prior to application for patent in an almost completed form.
We suspect that whether an application for foreign patent is to be filed or not is decided before it is filed domestically, and there is no period provided otherwise within which to decide only whether a foreign application is to be filed.

In Japan where the first-to-file principle is in force, on the other hand, there would be no such sufficient time, as would be available in the United States, within which to evaluate an invention. That is, once an invention is made, an application must be filed in a hurry.

Thus, most companies decide on the filing of an application, subject to a minimum requirement that it has novelty and non-obviousness, with the rest of the evaluation requirements left for the future reconsideration.

In Japan, the request for examination system may be made use of for the purpose of evaluation of the invention involved. Under this system, a certain grace period is available for exami-

nation after an application is filed, during which period evaluation may be made in respect of evaluation elements uncertain when the application was filed. Thus, at the time a decision is made by the applicant as to whether to apply for examination, the applicant usually reevaluates the invention on an overall basis from the technological, economical and exclusiveness angles. For this reason, evaluation elements would probably be considered, with no much difference from the practice in the United States, except for the time at which the request for examination is made and for any difference in evaluation elements to be emphasized.

A comparison of the evaluation timing between Japan and the United States is shown below:

Time of evaluation	Japan	U.S. .LS1
Domestic application	N	P
Foreign application	N	N/A (evaluated at the time of domestic application)
Request for examination (domestic)	P	N/A
Request for examination (foreign)	N	N
In the course of examination	N	N
Registration of patent	V	V
Maintenance renewal of patent	P	P

Notes: "P" stands for priority; "N" normal level; V .LM16 voluntary; N/A not applicable.

In short, the first-to-invent principle employed in the United States allows patent applicants ample time prior to filing of an application to evaluate the invention from technological, economical and patent angles. In Japan, on the other hand, the request for examination system allows an applicant to evaluate an application at the time of that request in addition to the time of filing that application. Thus, it may be said in a sense that the United States employs a concentrated evaluation system while Japan has decentralized evaluation system.

3-4 Comparison of Evaluation Elements:

While it is true that we are not familiar with the whole picture of valuation elements of inventions generally employed in the United States, it is unrealistic that practically all inventions generated from research and development activities there are reduced to applications for patent.

We are advised that in many of American companies less than 50 inventions are brought to their patent office out of every 100 generated. Although there may be differences according to companies, it would be almost definite that a some sort of evaluation is made of inventions before they are brought to the patent office.

There would be no fundamental difference between Japan and the United States with respect to the ultimate purpose of applying for a patent which would be exclusiveness in the market, licensing (including cross-licensing) or the like. For this reason, there would be no significant differences between both countries as far as individual evaluation elements are concerned. The differences, if any existent, would probably relate to how far individual evaluation elements are provided in detail and to which of the individual evaluation elements are given emphasis and priority.

American companies have fairly enough time within which to evaluate their inventions. Reportedly, during such enough time allowance, they make technological evaluation stringently and economical evaluation on the assumption that a given invention is reduced to practice. They are also severe with respect of exer-

cise of their right. It is expected that they have a system established to find out infringements and that inventions for license purposes are highly evaluated.

In addition, according to their corporate policy, the patent right amounts to the exclusiveness or, put it extremely, a patent is meaningless unless it is useful for exclusiveness in the market. With this in mind, they are very likely to place more emphases than Japanese companies do on, in addition to patentability; exclusiveness (market controllability, commercial value), profitability (licensing possibilities, licensing potentials, expected royalty income), future prospects of technology, and present status as well as future prospects of reduction to practice on the part of the applicant as well as competitors.

As previously mentioned, Japanese companies are very likely to file an application as long as the patentability and non-obviousness requirements are met, withholding in a sense evaluation of other elements. Uncertain elements at the time of the patent application may be reevaluated at the subsequent evaluation points, such as application for a foreign patent.

In Japan, therefore, an invention is not evaluated at the time of patent application with respect to all evaluation elements. The final evaluation for patent application is made on an overall basis at the time of filing a foreign application or of requesting examination, as the case may be.

In the case of a patent application in which certain evaluation elements are withheld at the time of filing thereof and

considered on an overall basis at the subsequent points of re-evaluation, the evaluation at the time of such reevaluation is specifically intended to select the exclusive rights to be applied for, in addition to reevaluation at the time of application for examination of the invention as initially applied for patent, for a final decision as to which inventions are qualified for patent application and which not.

3-5 Comparison of Differences:

Differences between the U.S. and Japan may be summarized, as follows:

Comparison of Patents between Japan and U.S.

Items of comparison	Japan	U.S.
1. Purpose of obtaining patent	Positive and defensive uses, as mixed	Principally for positive use, as for exclusive patent right or licensing
2. Kinds of exclusive rights to be secured	Useful for licensing; capable of being evaluated as to technology employed.	High licensing value
3. Timing of evaluation (up to grant of patent)	Decentralized evaluations at the times of filing an application and requesting examination	Concentrated evaluation prior to filing of an application
4. Evaluating system	Evaluated by respective departments involved for their parts	Expertise evaluating department
5. Who evaluates?	Heads of respective departments involved. Evaluated bottom-up, involving all personnel involved therein.	Personal, top-down.
6. Priority elements of evaluation	Technology, patentability, self practicability	Exclusiveness, unreplaceability, restraints on competitors, market trends, market domination.

4. Purposes and Methods of Questionnaires:

4-1 Purposes:

Based on the foregoing observation, information was collected, by use of a questionnaire form, from PIPA member companies. The questionnaires were focused on the following questions, with respect to the purpose of applying for patent, evaluation elements, evaluation system and evaluation timing:

Are evaluations made as originally planned?

What would be the differences between the models set out by us and their practise?

Could ideal models of evaluation exist, with due considera tion for actual situation?

4-2 Contents of Questionnaire and How Implemented:

For contents of the questionnaire, refer to Enclosure 1.

In that questions raised relate to confidential information, the questionnaire was completed on an unnamed basis. The questionnaire asks for information on respective companies and evaluation of inventions, in order to determine trends by lines and sizes of business. Information on detailed items were collected on an selection basis with respect to the following:

(1) Information on Companies:

a. Lines of businesses: Three consisting of machin.LM16 ery-metals; electric machinery and apparatuses; and chemicals-foods.

b. Number of patent applications filed during 1990.

c. The ratio at which the number of applications filed bears to

the number of inventions made and brought to the attention of the company.

d. The ratio at which the number of inventions regis tered in the Japanese technical review bears to the number of applications filed.

e. Ratio of requests for examination for 1988 in which such requests were completed.

f. The ratio at which the number of foreign applications bears to the number of domestic applications, on the basis of domestic applications in 1989, in consideration of the priority system.

(2) Evaluation of Invention:

a. Purpose for which patents are applied and maintained.

b. Changes in evaluation as compared with 5 years ago. If any, state when and reason.

c. Any invention evaluation system in force?

d. At what stages is an invention evaluated? When is the evaluation made with respect to the top priority element?

e. What departments evaluate inventions at respective stages?

f. What are evaluation elements, purpose of evaluation and priority evaluation elements at respective stages?

g. What are evaluation elements, purpose of evaluation and priority evaluation elements for foreign applications?

5. Results and Analyses of Questionnaires Recovered:

5-1 Overview:

The questionnaire was sent to all PIPA member companies, of which 62 companies responded, the ratio of response being 74%, consisting of 13 machinery-metal companies, 17 electric machine and apparatus companies, and 32 chemical and food companies.

Numbers of applications filed by each of the companies which have responded to our questionnaire average 1940, being not many, because few completed questionnaires were recovered from electric machinery and apparatus companies which have relatively many patent filings. Also, 84 applications are filed for every 100 of inventions generated, and 70 requests for examination were made for every 100 of applications filed.

As a result, as far as PIPA member companies are concerned, 59 (84 times 70) inventions are selected for examination for patent for every 100 inventions brought to the attention of the Company.

With respect to frequency of the evaluation, all companies evaluate their inventions at each of the stages of filing an application, filing a foreign application, requesting examination and maintaining a patent right, to screen inventions to be selected for patent application and patent rights to be owned and maintained.

Inventions are most severely evaluated at the time of foreign application by companies representing 48% of respondents, and at the time of request for examination by 40%, evidencing the use of the request for examination stage.

5-2 Detailed Analyses:

5-2-1 Domestic Applications:

(1) Distribution of Annual Filings of Applications by Respondents and Lines of Business (Fig. 1):

As shown in Fig. 1, annual filings of domestic applications among 62 companies vary from about 10 to 16,000, showing a great disparity.

Also, annual filings of domestic applications vary according to lines of businesses. Also, biases are observed according to lines of businesses. The electric machinery and apparatus sector has a great number of filings, centering in about 5,000 and extending to the highest of all lines of businesses.

The filings by each of chemicals and machinery lines, on the other hand, are under 4,000, showing differences among lines of businesses according to patent strategies and purposes of patent application.

(2) Evaluation System (Fig. 2 and 3):

All of the 62 companies answer that they have an evaluation system in respect of inventions. Also, 75% of the respondents state that they have an evaluation sheet, and 61% of the respondents have such a consecutive evaluation system as would cover, for instance, stages of application filing, request for examination and in the course of examination.

The above would indicate that about a half of the respondents have a system under which they evaluate their inven-

tions by use of an evaluation sheet.

Annual filings of those companies which have reported that they do not have an evaluation sheet are shown in Fig. 3. Those companies with less filings are likely to do without an evaluation sheet, although there are some companies with even more than 1,000 annual filings which do not employ an evaluation sheet.

More than 90% of the respondents say that patents are supervised by the patent department or intellectual property department.

(3) Timing of Evaluations (Fig. 4):

All respondents evaluate their inventions when requesting examination, evidencing the fact that the request for examination system is made use of.

(4) Screening of Inventions at Respective Stages of Origination, Application for Patent and Request for Examination (Fig. 5):

The machinery-metal and electric machinery & apparatus sectors screen the inventions generated when applying for patent, at about the same rate, while the chemical sector apply for patent at a higher rate than the rest. It probably has some bearing upon the number of inventions generated. The machinery-metal sector and the electric machinery and apparatus sector have a large number of inventions generated which they screen at the stage of filing applications. In the chemicals, on the other

hand, inventions generated are relatively few and not subject to so much screening as is for the two other sectors.

The ratio of the requests for examination to the applications filed is about 60% throughout the three sectors.

(5) Purposes of Applying for and Maintaining Patents (Fig. 6):

On the average, the exclusiveness in specific lines of business and the cross licensing with competitors show high values.

When classified by lines of businesses, chemical companies have an overwhelming share for exclusiveness in the market, with high ratios for defense likewise but with the ratio of registrations in the Japanese technical review as low as 3%. This would indicate that, when an invention is made, chemical companies generally apply, as their corporate policy, for a patent, including related technology, for exclusiveness in the market.

The machinery-metal sector has many companies trying for exclusiveness in the market and cross license arrangements with competitors and prior companies, with a low 3% ratio of registrations in the Japanese technical review. It would be indicative of a corporate policy generally in existence for screening of inventions necessary for licensing.

Finally in the electric machinery and apparatus sector, companies aiming at exclusiveness of their specific products are less percentagewise than in the two other sectors, with patent applications for defense purposes being in the middle of the two

other sectors. Thus, they seem to place emphasis on cross license arrangements with other companies, particularly competitors, rather than exclusiveness in the market. The ratio of registrations in the Japanese technical review is 8%, a very high ratio indicating that they are generous to their competitors for use of their own ideas. We are under the impression that each of chemical companies lives and let others live, mutually applying for many patent applications.

(6) Patent Evaluating Departments (Fig. 7):

From this, you will see what departments are involved in evaluation of inventions at respective stages of evaluation. Both patent and invention departments are involved to almost the same extent, being highly involved at the times of patent application and request for examination but less involved thereafter, as the time passes, until the registration stage at which the rate of their involvement in evaluation is very low. A product development (project planning) department, instead, becomes more involved, as the time passes to the stages of request for examination and examination.

As far as domestic applications are concerned, it is very seldom that an invention evaluation committee evaluates inventions.

It will be seen, as far as you can see from these results, that each of different departments evaluates an invention independently as to technological, economical and patent aspects,

mutually supplementing the other, to arrive at ultimate evaluation.

(7) Purposes of Evaluation (Fig. 8):

Purposes of evaluation at respective stages have no significant differences among the three sectors. You will see from this figure that evaluation is made at all pertinent stages for strict screening of appropriate patents.

(8) Timing and Elements of Evaluation:

(i) Overall Analysis -- Changes in Priority Evaluation Elements (Fig. 9):

Novelty and non-obviousness are given the highest highest priority at the patent application stage. At and after the request for examination stage, the priority moves to the self execution.

At the patent registration stage, substantial evaluation of patents do not appear to be implemented. It should not be forgotten, however, that inventions have been highly evaluated by that time as to their technological aspects.

At the patent maintenance stage, more emphasis is placed on evaluation of technological, exclusiveness, restraints on competitors and life of invention aspects, than before.

(ii) Analysis by Sectors:

(A) Characteristics of Machinery-Metal Sector (Fig. 10):

At respective stages of evaluation, many companies place emphasis commonly on self execution, in the same manner as the

other sectors. At the application filing stage, inventions are evaluated with emphasis principally on self execusion and patentability and on technological aspects. The degree of emphasis on technological evaluation comes down as the stage goes on but remains to be made consecutively. At the request for examination stage which many companies in this sector regard as being most crucial, they evaluate exclusiveness, restraints on competitors and relative difficulty for practice.

The machinery-metal sector has two diversified stages on which the priority emphasis is placed in connection with the evaluation of inventions; namely, the invention filing stage and the request for examination stage.

Fig. 6 showed that the purposes for which patents are sought for protection of inventions were principally the cross licensing with competitors, followed by the exclusiveness of specific products in the market and the cross licensing with prior companies, all of which were relatively higher, when compared with the other sectors. If you consider what Fig. 6 means together with what is meant under Fig. 10, you will see that many companies place emphasis on technological evaluation and self execution throughout all stages of application filing to abandonment of patents, and that, the higher technological evaluation an invention made by a company is, the longer it is evaluated so that it is used for cross licensing with its competitors and prior companies, thus serving the purpose for which a patent filing is made.

(B) Characteristics of Electric Machinery and Apparatus Sector (Fig. 11):

In the electric sector, priority evaluation elements remain almost the same from the domestic filing stage to the "in the course of examination" stage. For domestic filing, patentability is given the top priority, followed in many companies by self execution and technological evaluation. At and after the request for examination stage, self execution is given the top priority.

At the maintenance stage, more emphasis is placed on life of invention and confirmation of infringements.

As previously discussed, this sector places great emphasis on cross licensing arrangements with competitors. With this in mind, we will proceed to make an analytic discussion.

As compared with the two others, many of this sector regard confirmation of infringements as being more crucial than technological evaluation. This would probably reflect that, in the case of a cross license agreement, while inventions of high technological evaluation are badly needed, any patent infringement must be found out without difficulty.

(C) Characteristics of Chemical Sector (Fig. 12):

At the application filing stage, emphasis is placed on patentability and technological evaluation, followed by self execution.

Evaluation is made most severely at the request for examination stage by 34% of the respondents. At this stage, more respondents report that they give the secondary priority to self execution.

At the maintenance stage, few companies give priority to self execution, and many respondents give more emphasis on restraints on competitors, technological evaluation and life of invention.

As discussed earlier, many companies state that they seek for patent for the purpose of, among others, exclusiveness in the market. Frankly, we are not certain as to whether it is indicative of an evaluation element properly reflecting upon the purpose of license filing that many companies at the maintenance stage regard restraints on competitors as being most crucial,

5-2-2 Foreign Application:

(1) Purposes for which Foreign Applications are Evaluated (Fig. 13):

The ratio at which the number of foreign applications filed bears to that of domestic applications is low at 16%, of which 90% are filed in the United States. This will be understandable based on the fact that the priority in the evaluation of foreign applications lies in strict selection of the purpose for patent application.

(2) Timing of Evaluation of Foreign Applications (Fig. 14):

With respect to timing of foreign application, overwhelmingly many companies, totaling 95% of respondents, review inventions and make a decision for it within one year of filing of domestic applications. In the electric area, while

many companies review inventions and make a decision for foreign application within one year, those which evaluate the foreign application feasibility at the domestic application stage total 18% of the total respondents, far exceeding 8% of the two other sectors.

Also, more importance is placed by this sector than by any of the two others on the foreign application stage, among a series of stages starting with domestic application and ending with maintenance of patent. This would probably be reason the foreign applications are not many as they relate to the domestic applications.

(3) Who Evaluate Foreign Applications (Fig. 15):

Fig. 15 shows who evaluate foreign applications as they relate to who evaluate domestic applications.

It shows that the evaluation structure for the foreign application stage is evidently different from that for the domestic application stage. At the foreign application stage, many companies provide a specific evaluation committee to evaluate foreign filing (while there is no such committee at the domestic filing stage).

Once evaluation of an invention moves to the request for examination for foreign filing, it is made mostly by the patent or invention department. This would be understandable partly because, as mentioned in (4) below, many companies put emphasis on patentability for evaluation.

(4) Evaluation Element for Foreign Filings (Fig. 16):

The top evaluation priority at the foreign filing stage is given to the review of novelty and non-obviousness, technological evaluation and self execution. The same at the request for examination stage is given overwhelmingly to the patentability. These seem to be reasonable because, at this stage, search reports are considered.

Distribution of emphases on evaluation elements for foreign filings is rather closer to that for domestic filings.

(5) Criteria for Selection of Countries in which Applications should be Filed (Fig. 17):

As will be seen from the figures given, the largest number of companies, regardless of lines of businesses, place the priority for foreign filing on the countries to which products are exported, followed by the countries in which competitors are located and the countries in which subsidiary plants are located.

Presumably because many of the machinery companies have their own plants overseas, they consider, more than companies of the two other sectors, whether they have their own plants in the countries to which their products are exported, as a criterion for deciding whether to file an application there.

5-2-3 Changes in Evaluation Elements as Compared with 5 .LM11 Years ago (Fig. 18):

The figure given shows whether there has been any change in

the evaluation elements at the respective stages of evaluation, as compared with 5 years ago when the pro-patent phenomenon started growing.

According to our survey, more than 10% of the respondents advise that they have had changes in evaluation elements at respective stages of the application filing and the request for examination. No remarkable changes are observed after the evaluation moves to the examination stage.

The reasons for those changes are reported to include strict screening of applications to be filed and decreases in application filings for defense purposes, but do not seem to have anything particular to do with the pro-patent phenomenon.

5-2-4 Criteria for Evaluating Trends of Application Filings (Fig. 19):

The figure given here shows on what elements companies base their valuation when judging their own annual trends of application filings, and reveals that practically all companies base their judgment on the number of patent applications filed.

With respect to on what data they analyze the trends of application filings, the figure given states that the achievements for the preceding year or half-year is the most popular, followed by numbers of patents held, comparison with competitors, and expense for the patent department.

In the case of foreign applications, the weight of the patent department expense is heavier than for domestic filings.

6. Findings:

6-1 Differences from Model Set Out:

(1) Purposes of Evaluation (Purposes for which Patent Filing is Pursued for Protection of Inventions) :

As the purposes for which companies seek for patent to protect their inventions, we have arbitrarily assumed the exclusiveness in the market, licensing arrangements with competitors, licensing arrangements with prior companies, filing for defense purposes, and technological evaluation. The completed questionnaire we have recovered from the member companies shows that they have the identical range of purposes as stated above, with no additional purposes stated.

(2) Timing of Evaluations:

According to our models set out, it was arbitrarily assumed that the most severest evaluation would be given at the times of application filing, followed by the request for examination. The completed questionnaires recovered revealed that evaluation is actually made, in the order of severity, at the times of request for examination, deciding whether to renew maintenance of patents, and domestic filings.

(3) Evaluation System and Who Evaluate?:

The model was arbitrarily set out on the assumption that the evaluation by the patent department would suffice if solely for the application filing stage. According to our survey, however,

the patent department is involved in all stages of evaluation, not necessarily only at the application filing stage. Also, our model case assumed that foreign applications would be evaluated by two departments consisting of the invention and the project planning. According to what we have discovered from the questionnaire recovered, however, the patent department seems to have the leadership instead.

In Japan, inventions are still evaluated under the leadership of the patent department.

(4) Priority Evaluation Elements:

Under the set model, it was assumed that life of invention, self execution and possible licensing to competitors would be the most popular elements to be evaluated throughout all evaluation stages. According to the questionnaires recovered, however, companies when evaluating their inventions put emphasis on self execution, technological evaluation and restraints on competitors in the listed order. In other words, the actual practice revealed, differently from the set model, that self execution is given the top priority.

With respect to foreign applications, the arbitrary model assumed that the technological excellence and size of effects would be given the priority evaluation and that, when compared with domestic applications, size of practical effects would be an additional evaluation element.

According to the results of the questionnaires recovered, the technological excellence ranks high, as is the case with the

model case. According to the questionnaires, in addition, the patentability which should have been evaluated at the domestic filing stage is evaluated again emphatically at the time of foreign filing. This is exactly what we have assumed as one of priority evaluation elements for foreign filings. The size of practical effects may be said to be evaluated in terms of patentability, that is, novelty and non-obviousness. Thus, we believe that the priority evaluation elements in actual use are the same in substance with those assumed in the model case.

6-2 Consideration:

This Group has pursued, discussed and designed a set of models common to all classes of businesses. Results of our questionnaire reveals that purposes for which patent is sought for protection of inventions vary according to lines of businesses involved. Also, the evaluation mechanisms in actual practice are more or less different from those of the assumed model. It would be a very difficult problem to determine whether we should try to bring the actual practice closer to the assumed model by comparing the outcome of the questionnaires with our model or leave the actual practice as it is.

This Group has discussed it but no unanimous opinion was arrived at.

With respect to the present practice in which the number of application filings is relied upon by many companies for judgment of their own application filing trends, our discussion has con-

cluded that there would be no most appropriate single answer and that, except for economical and expense-wise restraints, the most appropriate answer should vary with the degree of technological maturity, sector of business and corporate policy of individual companies as well as the business situation in which respective companies are placed.

7. References:

(1) "In-house inventions and compensation," "Hatsumei Kyokai," February 1, 1982

(2) "Patent Management for Tomorrow," "Hatsumei Kyokai," 1975

(3) "Patent Management by Hitachi"

(4) "Patent Management by Fujitsu"

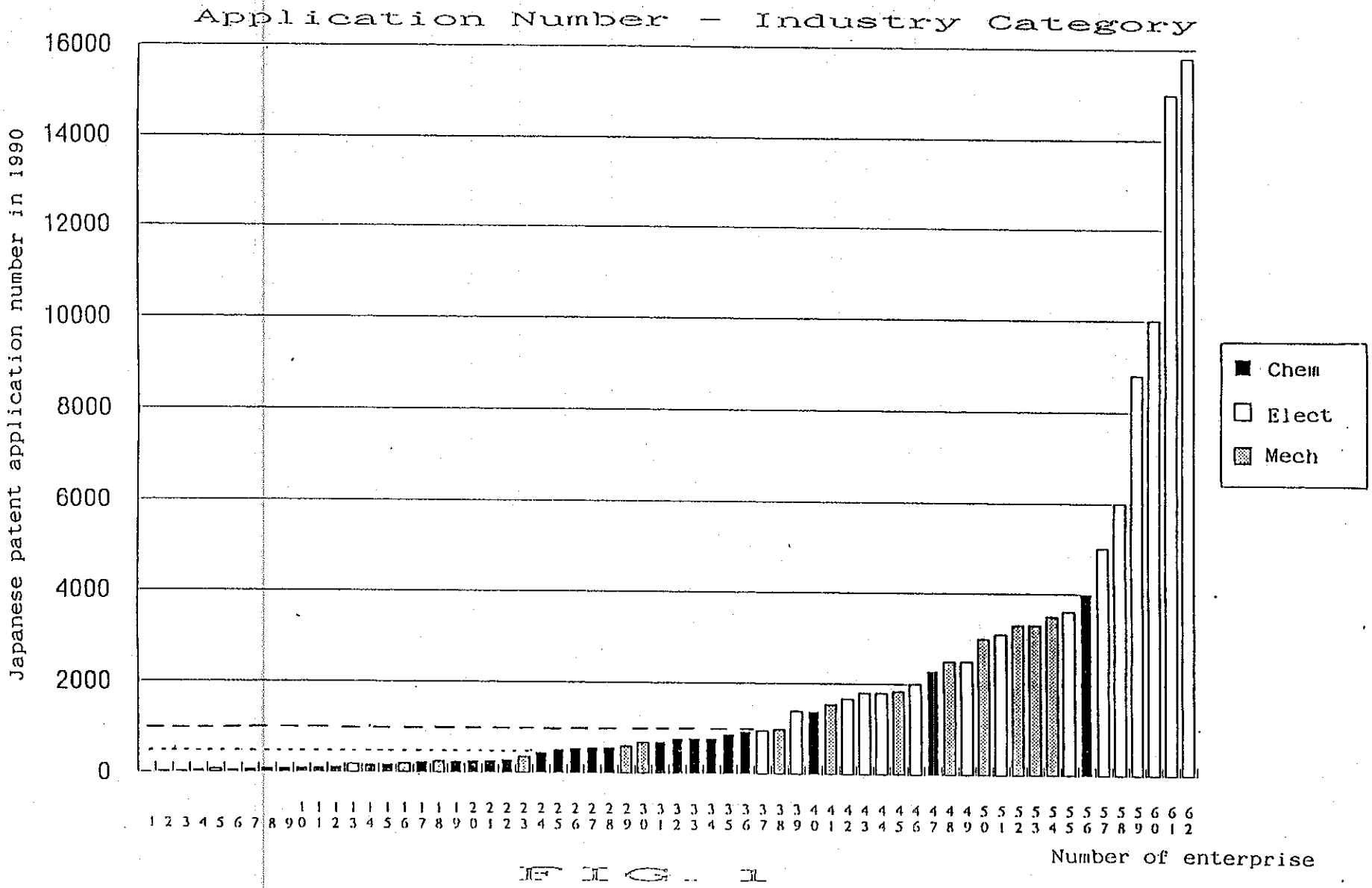
(5) "Patent Information Management for Researchers," magazine "Kenkyu Kaihatsu Management," July 1991

(6) "Global Protection and Management of Intellectual Property Rights in IBM," "Tokkyo Kanri" Vol. 41, No. 4, 1991

(7) "Patent Management in Businesses," "Tokkyo Kanri" Vol. 22, No. 3

8. Enclosures:

Questionnaire, "Questionnaires on intellectual property management in pro-patent age," (abstract)


Application Number - Industry Category
Japanese patent application number in 1990
16000
14000
12000
10000
8000
6000
4000
2000
0
Chem
Elect
Mech
Number of enterprise

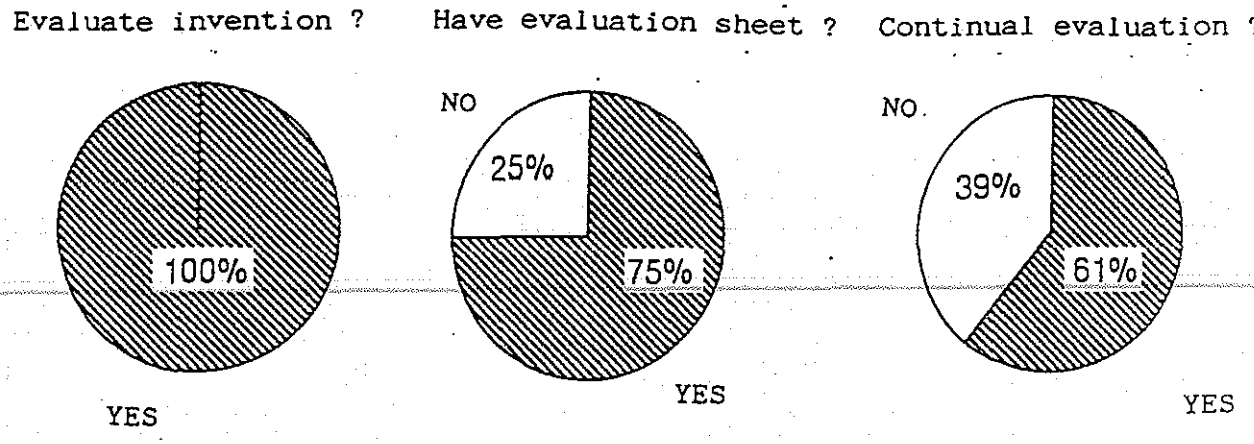

Evaluate invention ?
100%
YES
Have evaluation sheet ?
NO
25%
75%
YES
Continual evaluation ?
NO
39%
61%
YES

FIG. 2

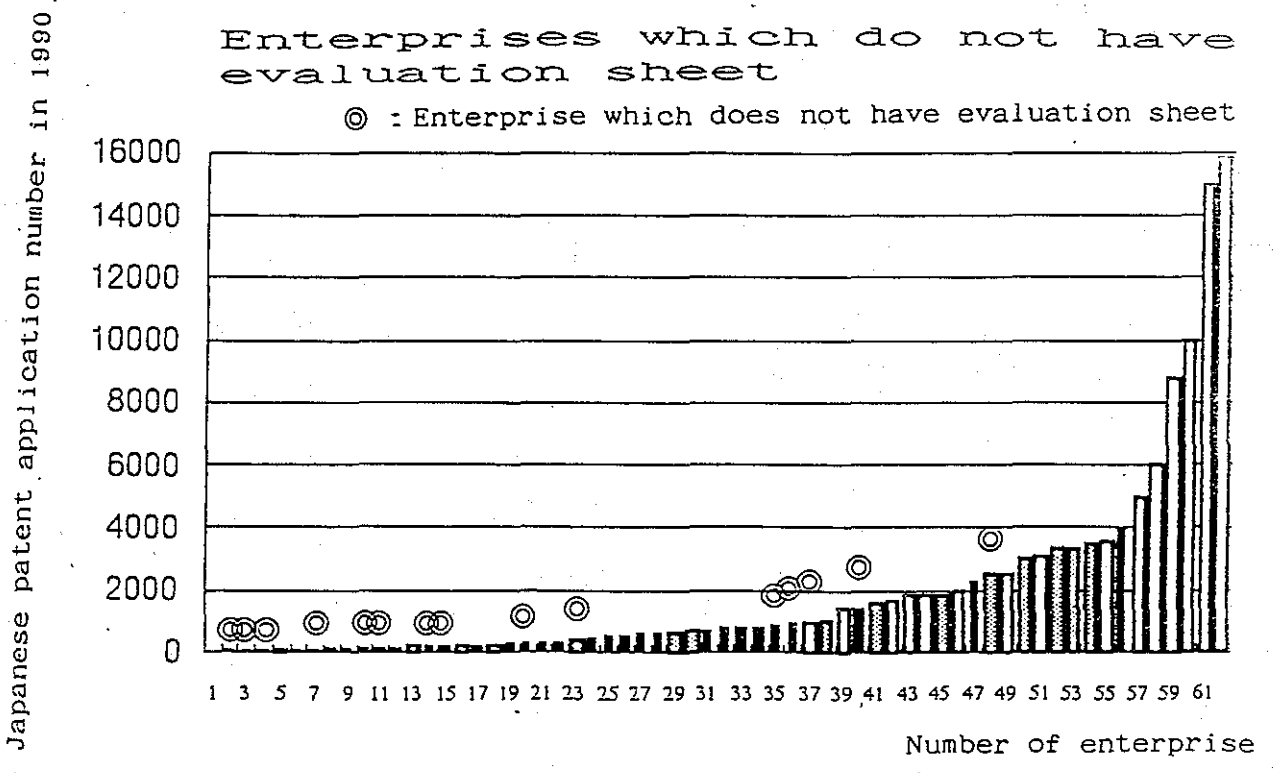

Enterprises which do not have evaluation sheet
◎ : Enterprise which does not have evaluation sheet
Japanese patent application number in 1990
16000
14000
12000
10000
8000
6000
4000
2000
0
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61
Number of enterprise

FIG. 3

Evaluation ratio at each time

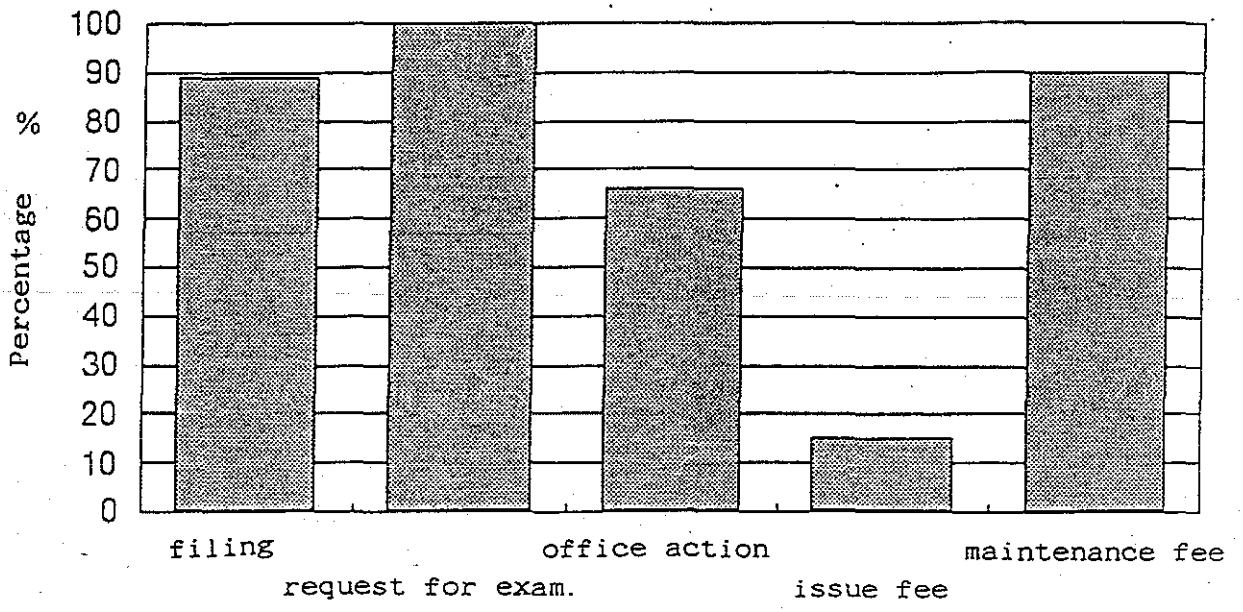
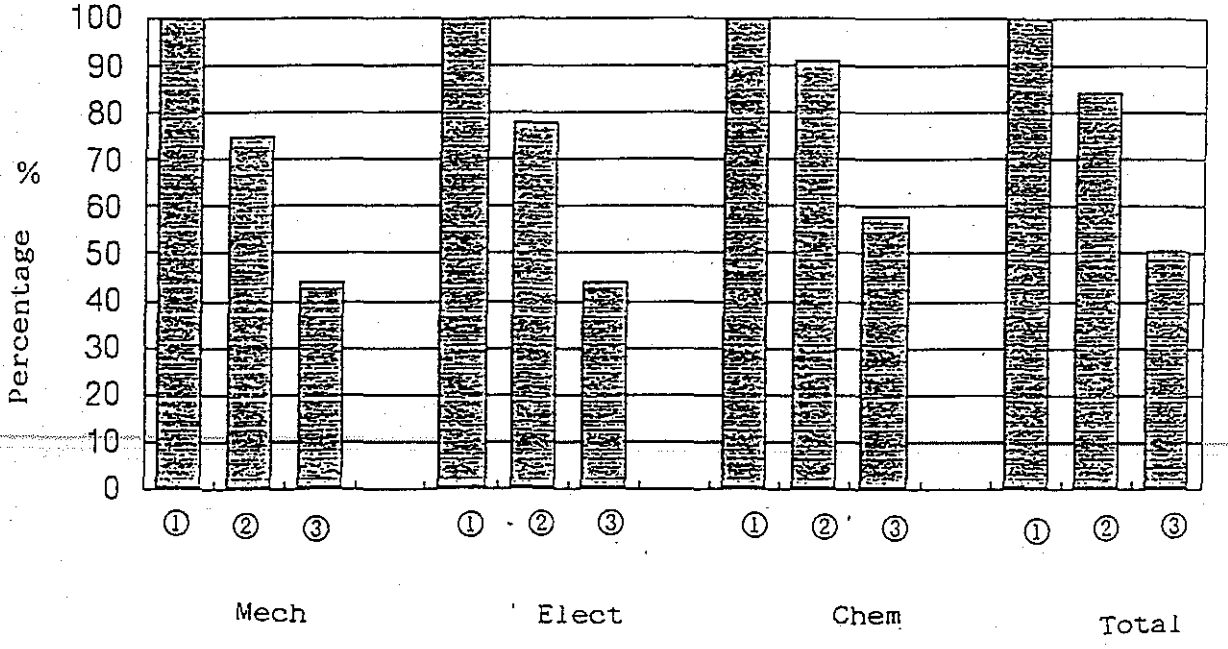


FIG. 4

Decreasing numbers by evaluation

Invention disclosure(100) → Application
→Request for examination



① : Invention disclosure
② : Application
③ : Request for examination

FIG. 5

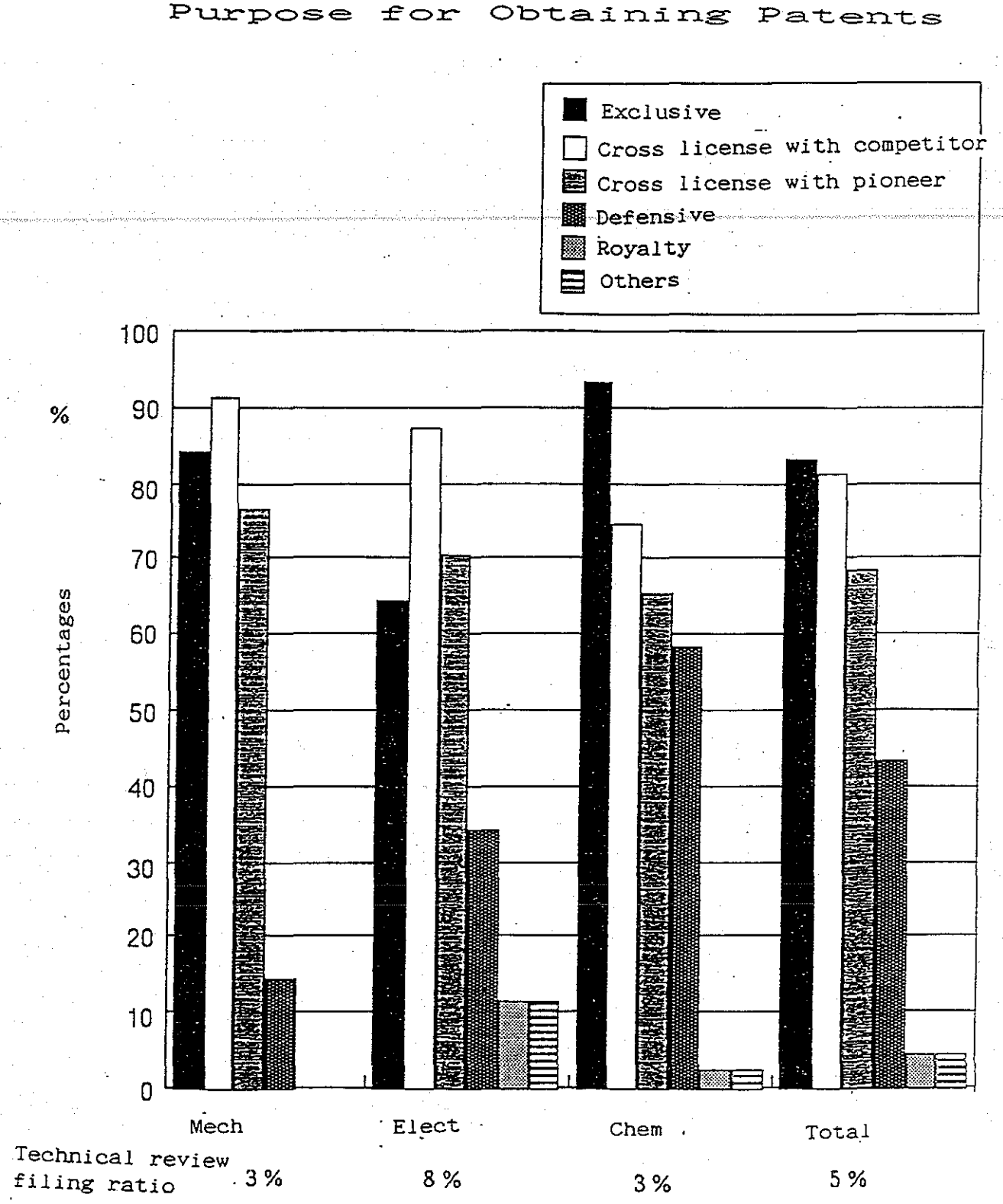

Purpose for Obtaining Patents
Exclusive
Cross license with competitor
Cross license with pioneer
Defensive
Royalty
Others
%
Percentages
100
90
80
70
60
50
40
30
20
10
0
Mech
Elect
Chem
Total
Technical review filing ratio
3 %
8 %
3 %
5 %

FIG. 6

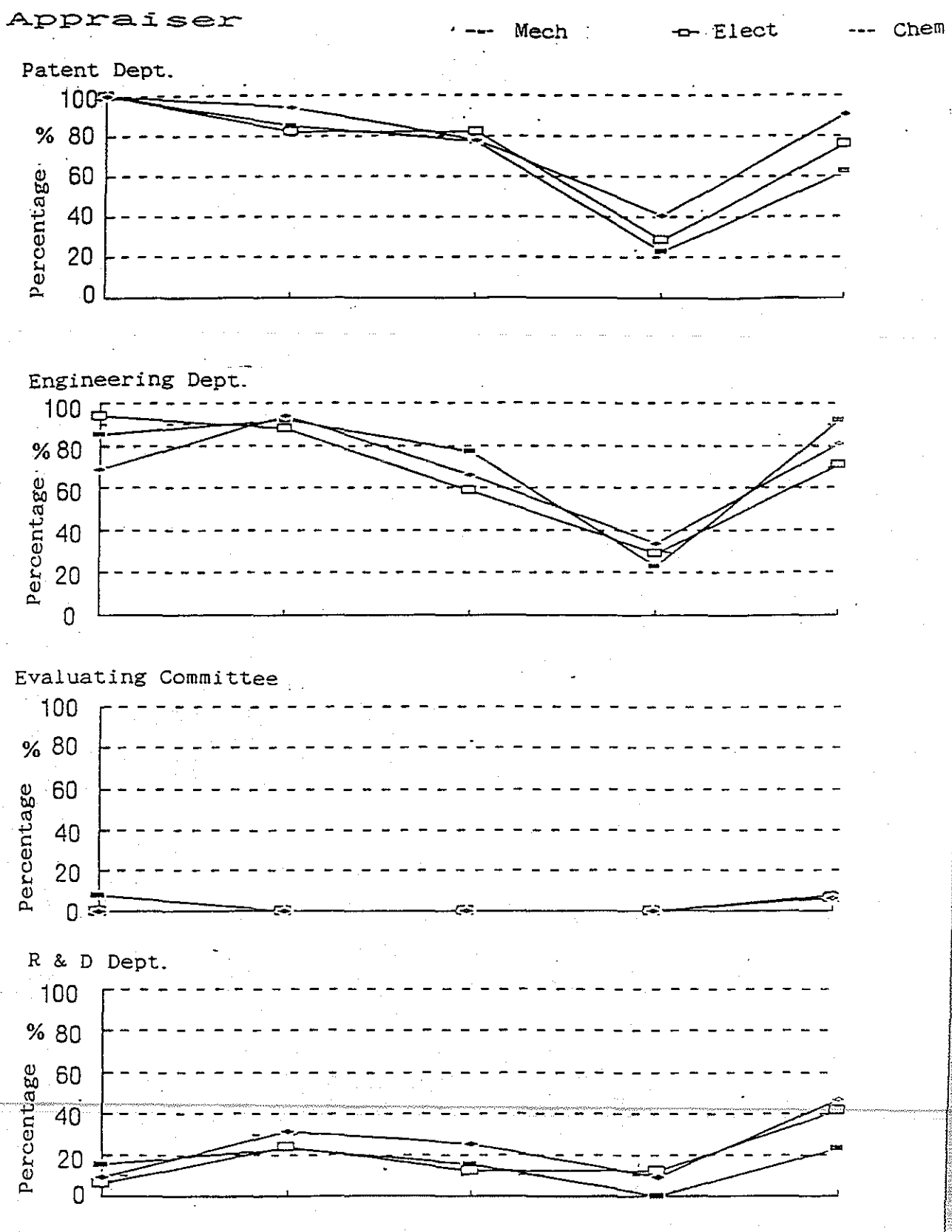

Appraiser
--- Mech
Elect
--- Chem
Patent Dept.
100
% 80
60
40
20
0
Percentage
Engineering Dept.
100
% 80
60
40
20
0
Percentage
Evaluating Committee
100
% 80
60
40
20
0
Percentage
R & D Dept.
100
% 80
60
40
20
0
Percentage
filing
request for exam.
office action
issue fee
maintenance fee

FIG. 7

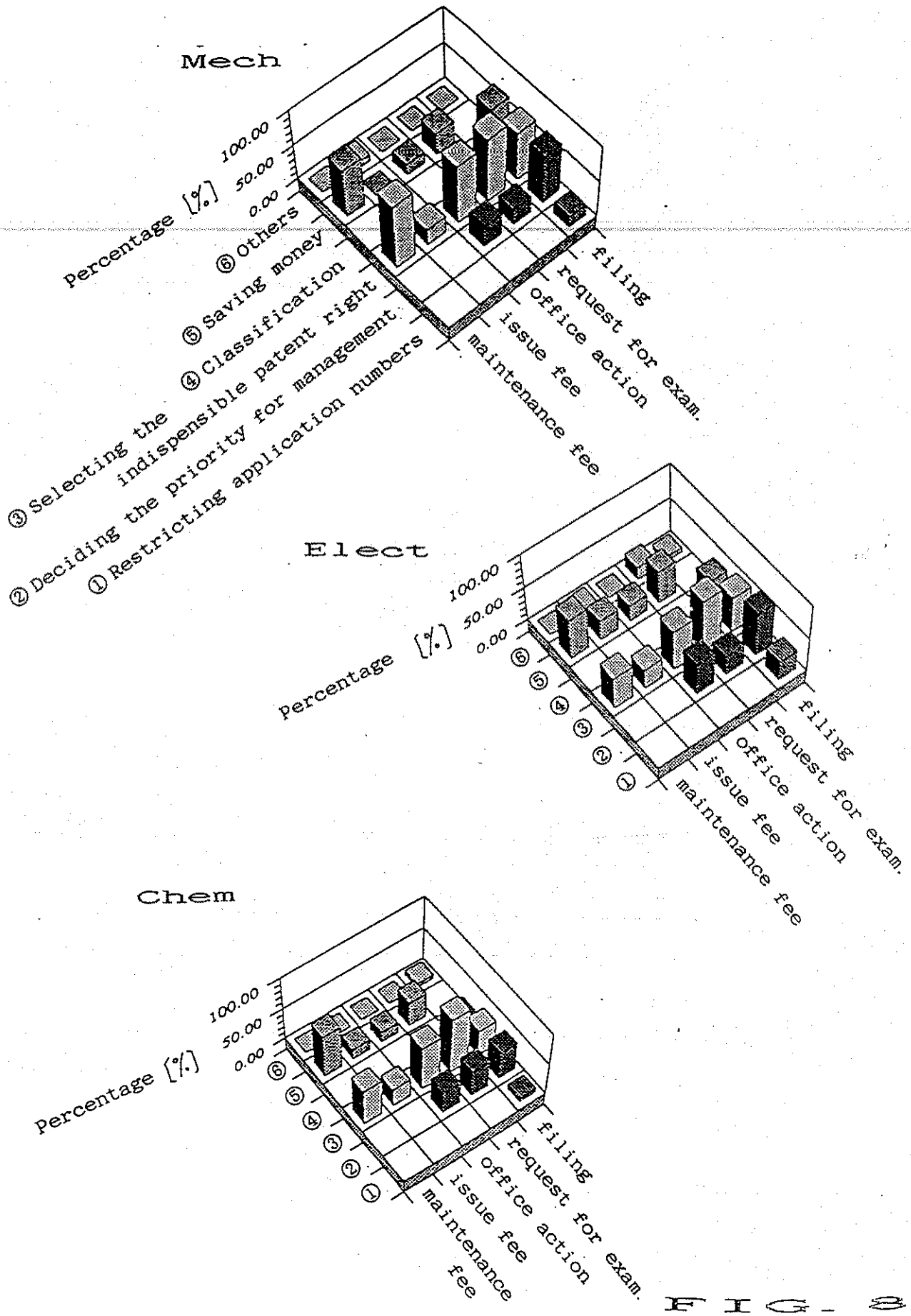

Purpose of evaluation
Mech
Percentage [%]
100.00
50.00
0.00
⑥ Others
⑤ Saving money
④ Classification
③ Selecting the indispensible patent right
② Deciding the priority for management
① Restricting application numbers
filing
request for exam.
office action
issue fee
maintenance fee
Elect
Percentage [%]
100.00
50.00
0.00
⑥
⑤
④
③
②
①
filing
request for exam.
office action
issue fee
maintenance fee
Chem
Percentage [%]
100.00
50.00
0.00
⑥
⑤
④
③
②
①
filing
request for exam.
office action
issue fee
maintenance fee

FIG. 8

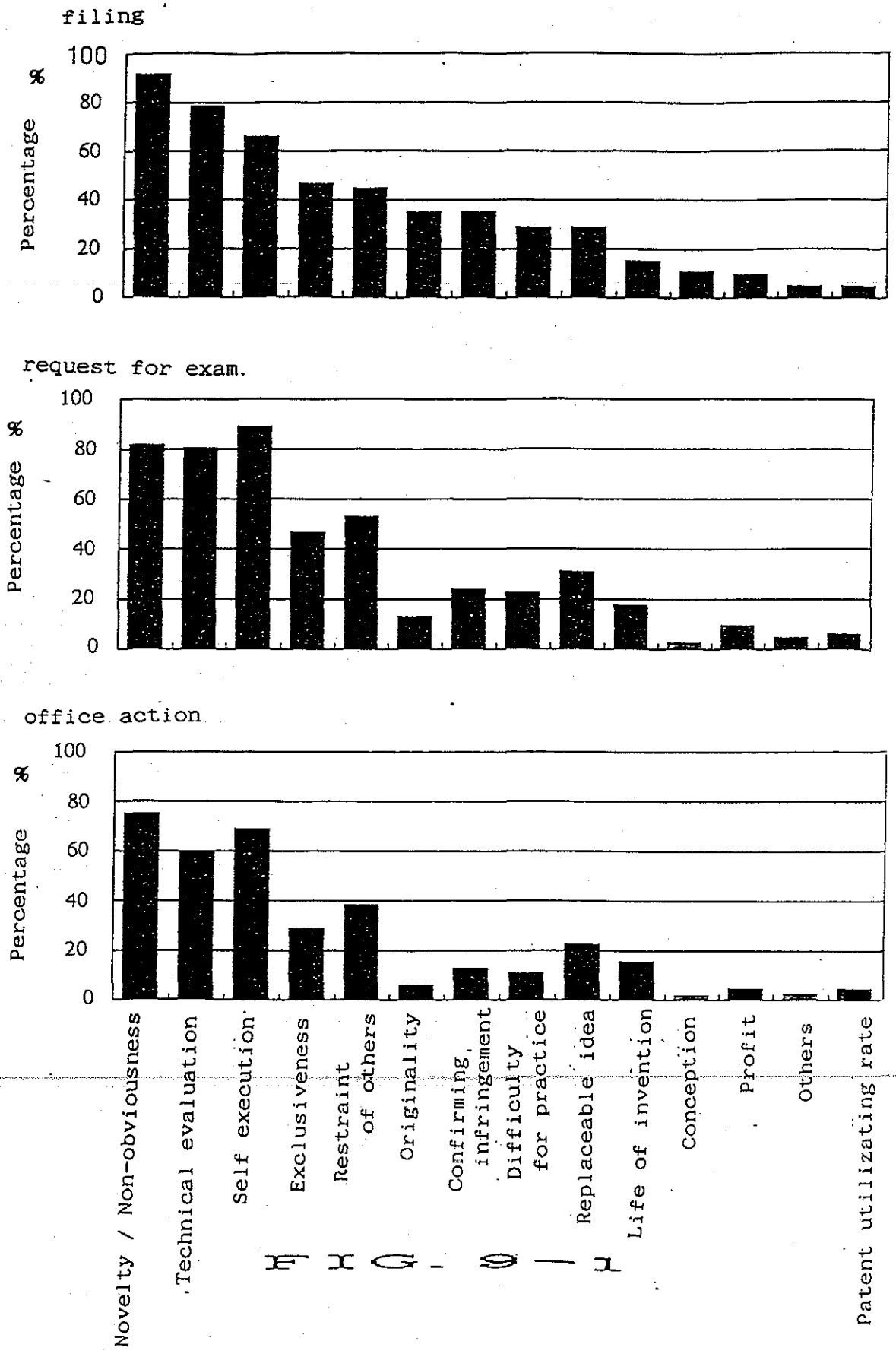

Evaluating items at each time
filing
Percentage
%
100
80
60
40
20
0
request for exam.
office action
Novelty / Non-obviousness
Technical evaluation
Self execution
Exclusiveness
Restraint of others
Originality
Confirming, infringement
Difficulty for practice
Replaceable idea
Life of invention
Conception
Profit
Others
Patent utilizating rate

FIG. 9-1

Evaluating items at each time

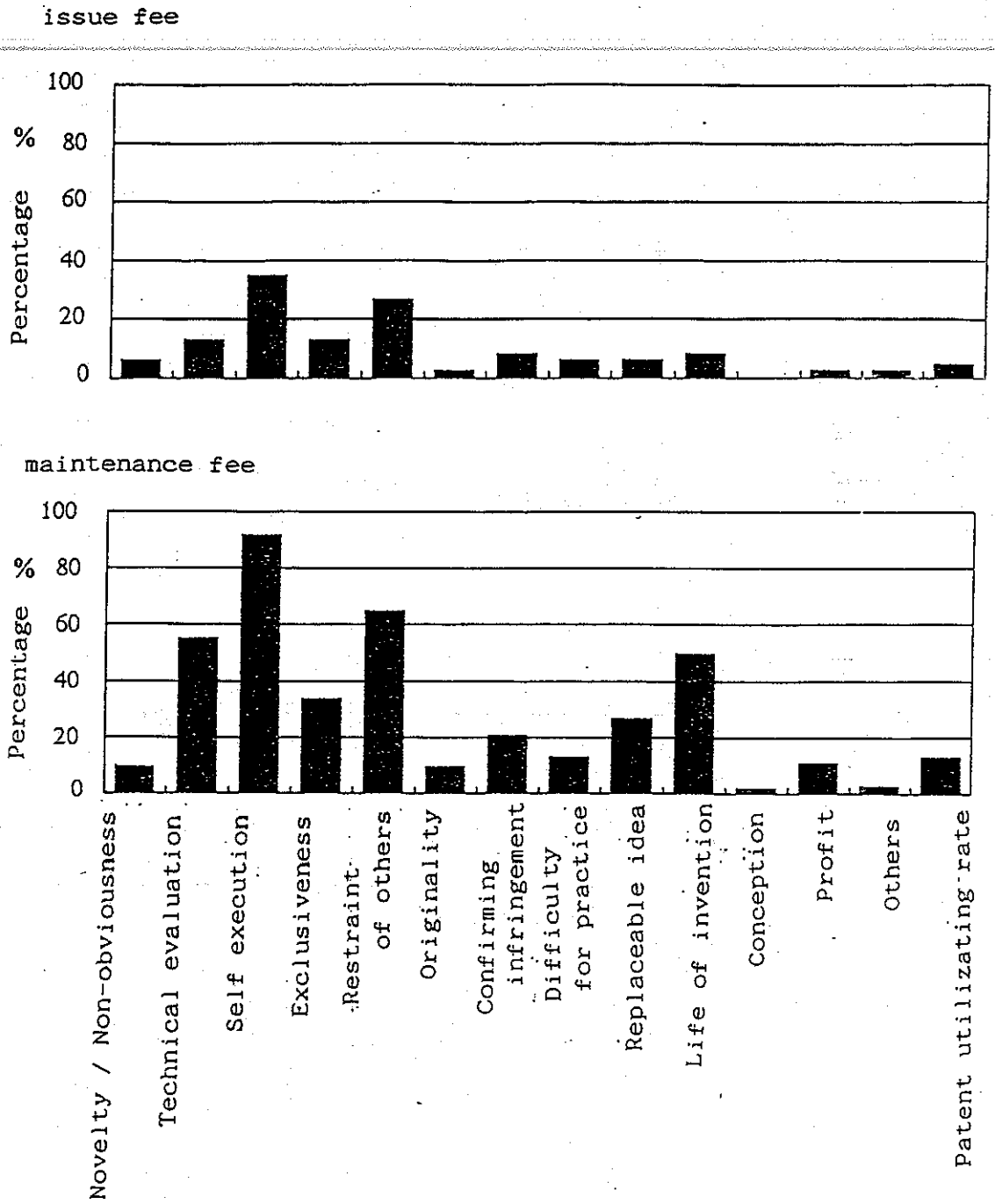


FIG. 9—2

Significant evaluating items (Mech)

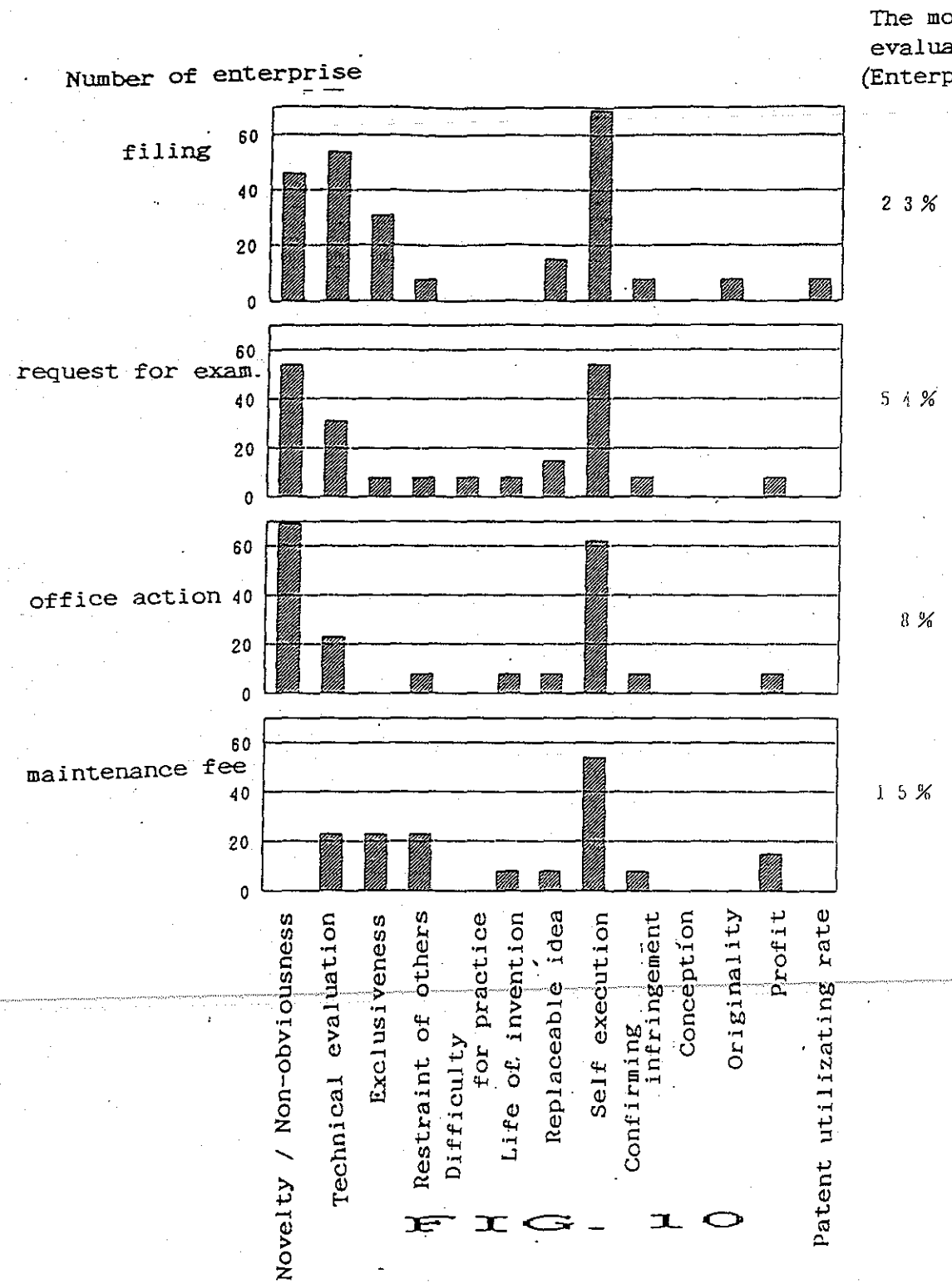


FIG-10

significant evaluating items (Elect)

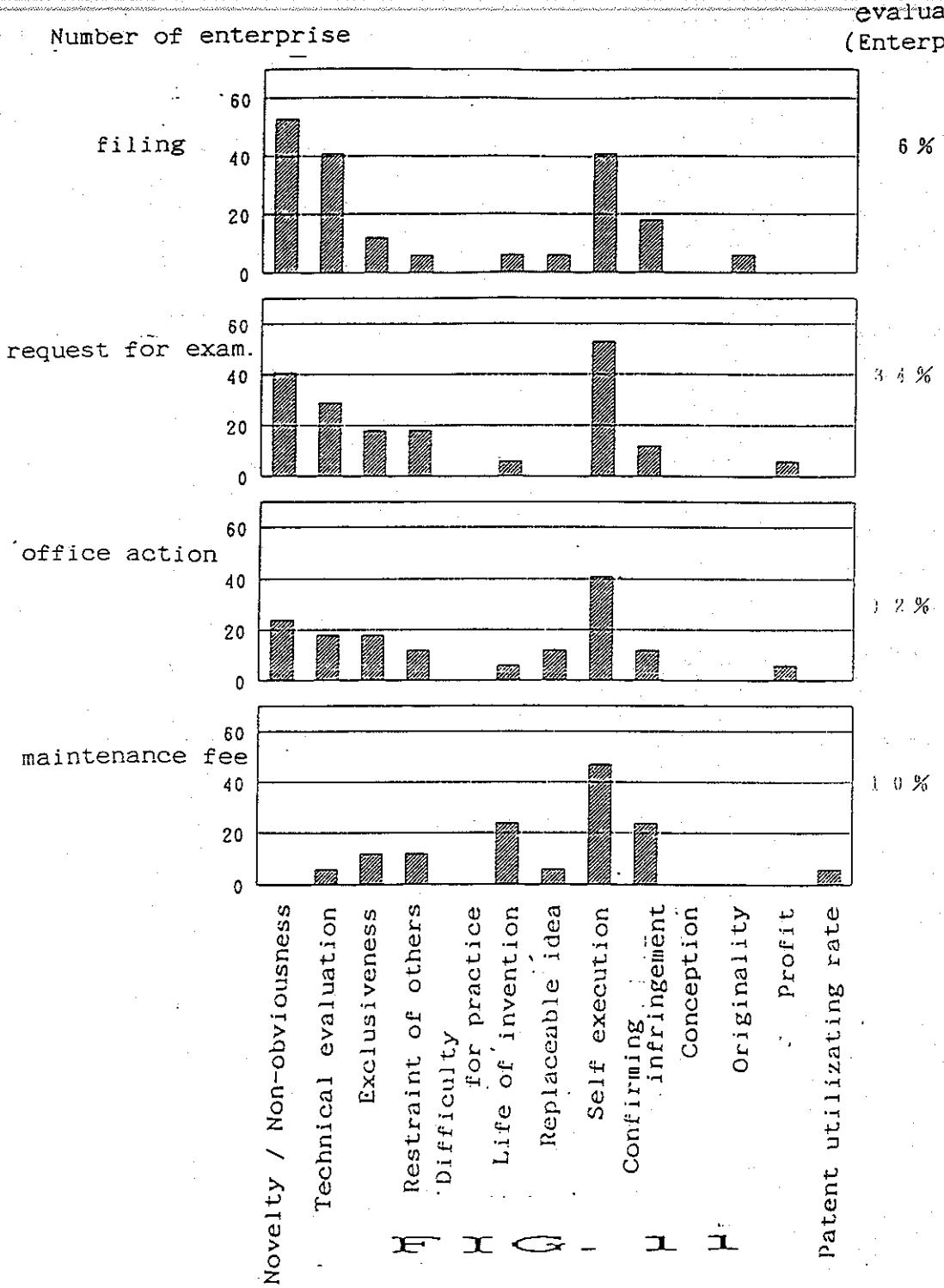


FIG. 11

Significant evaluating items (Chem)

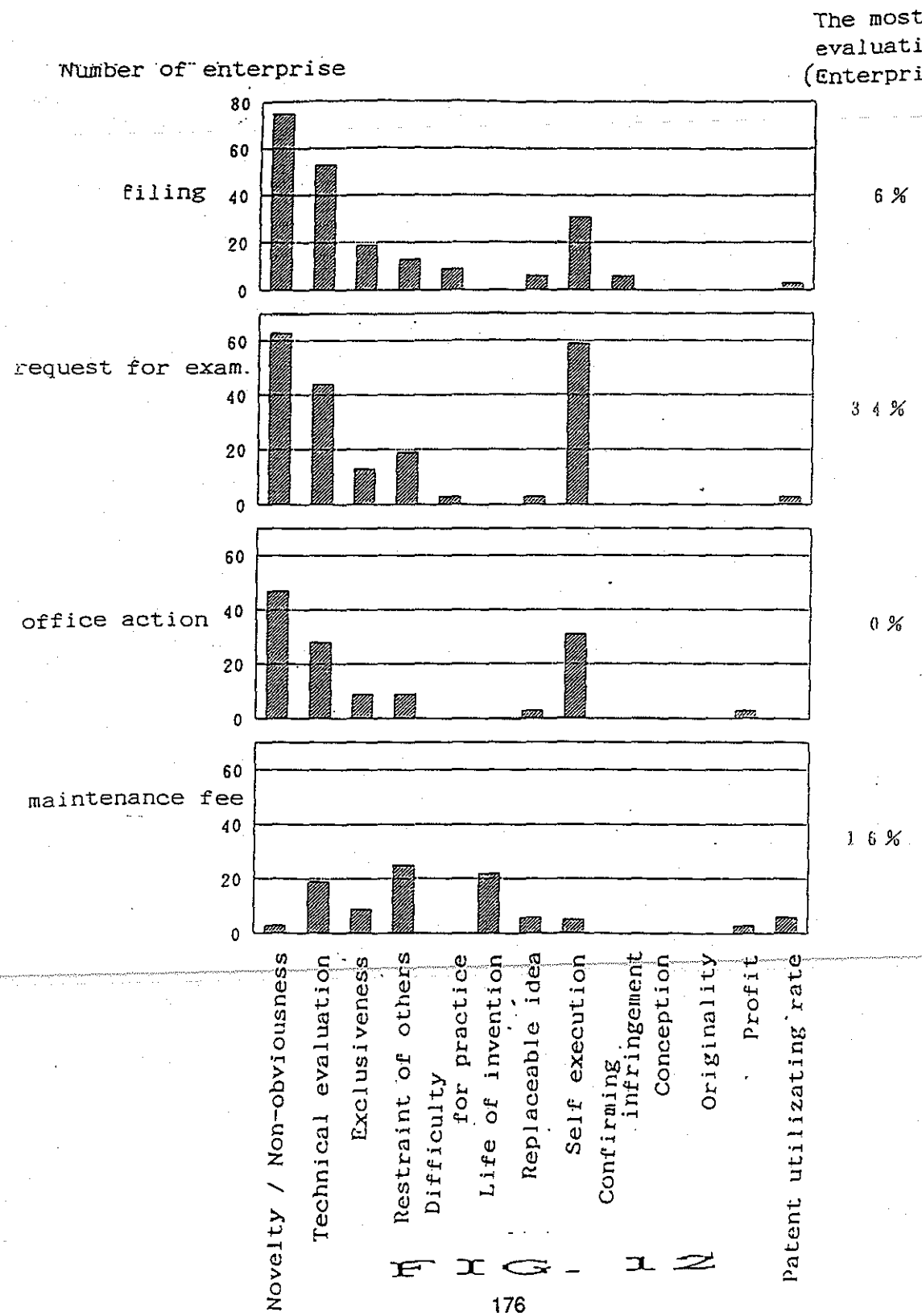
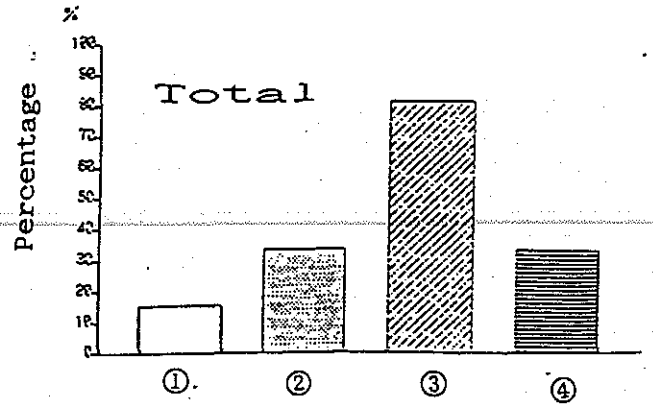
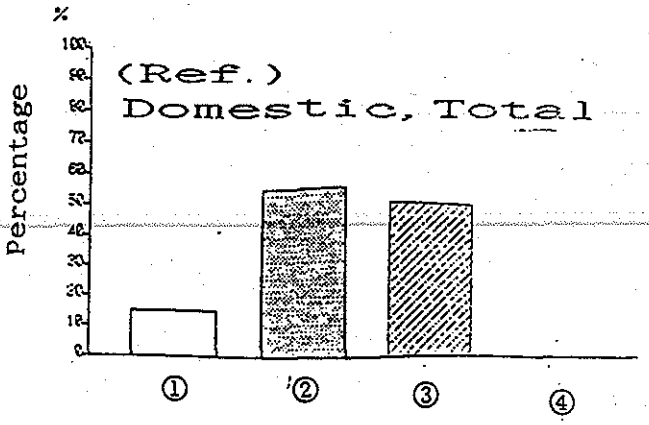
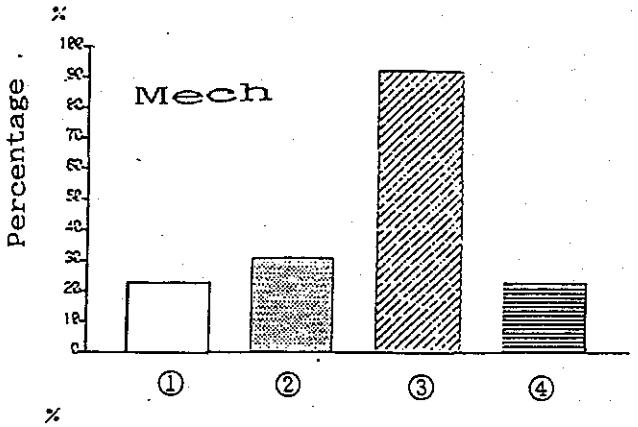


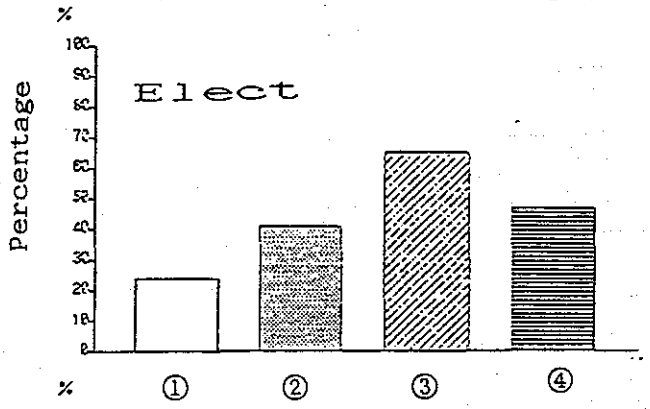
FIG. 12

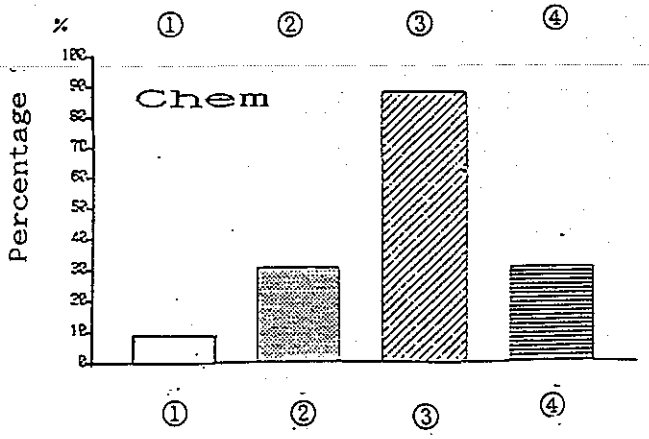
Foreign application/Evaluating purpose











① :Restricting application numbers

② :Deciding the priority for management

③ :Selecting the indispensible patent right

④ :Saving money

FIG. 13

Foreign application/Evaluating timing

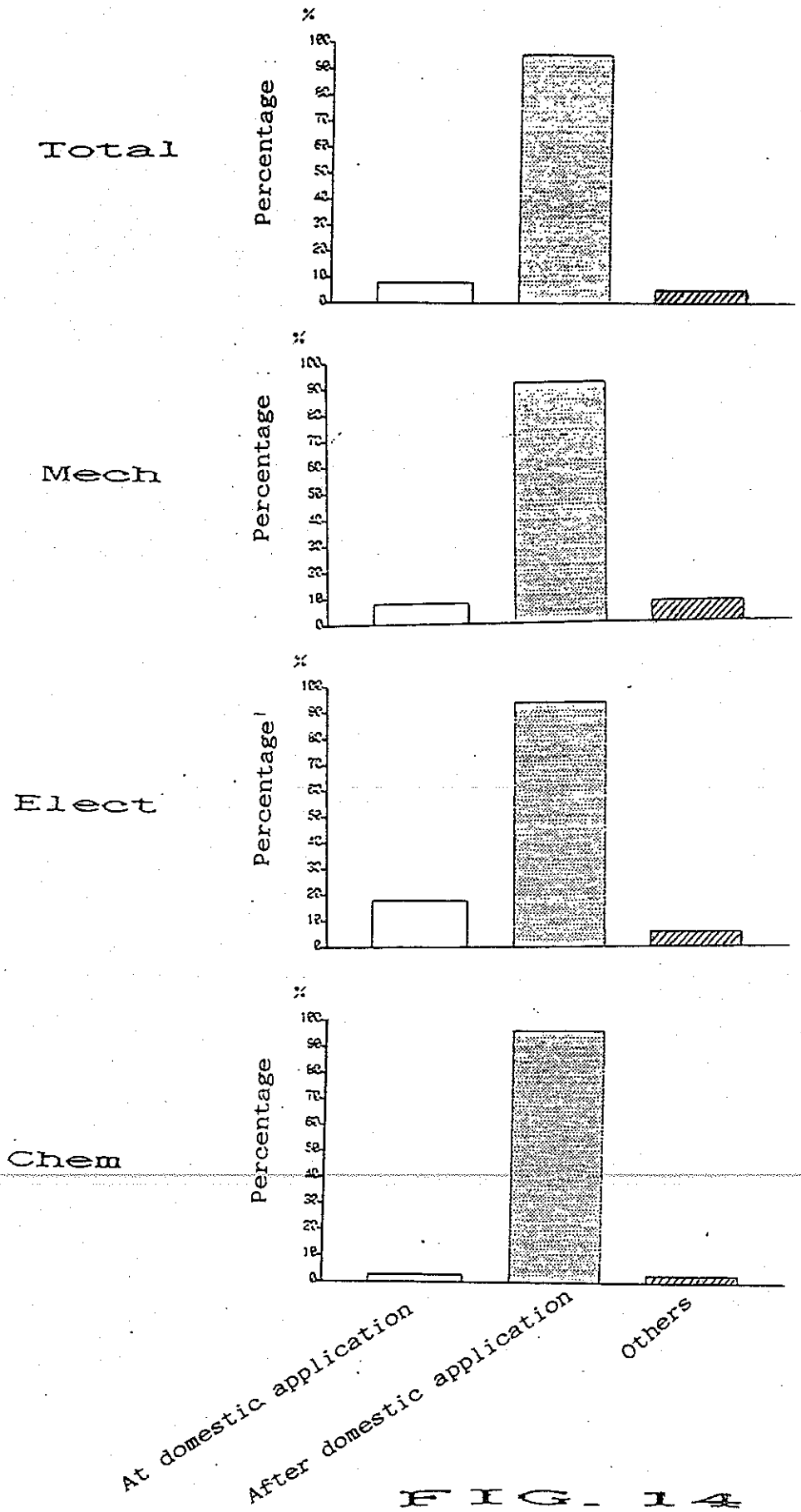
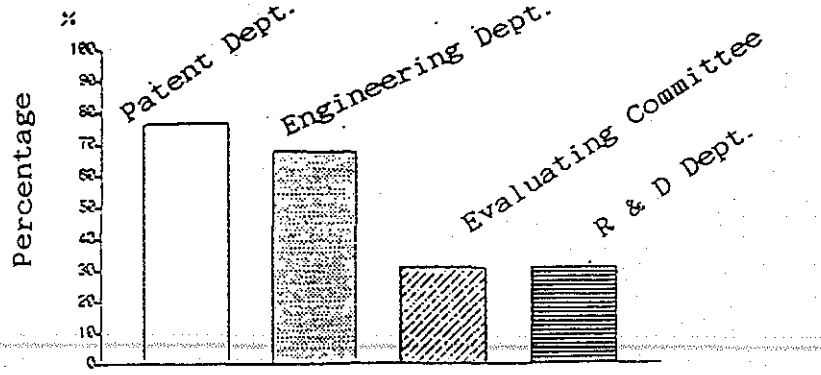


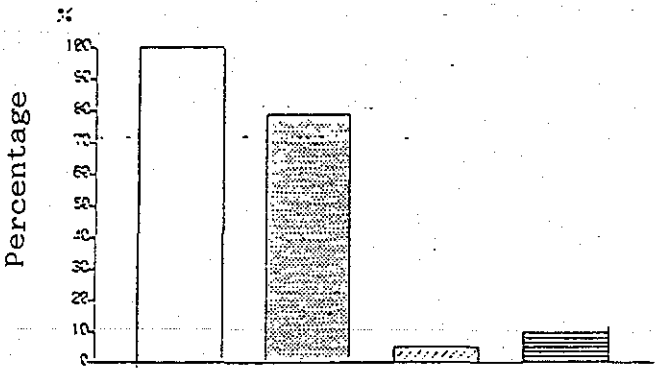
FIG. 14

Appraiser of foreign application

Foreign application

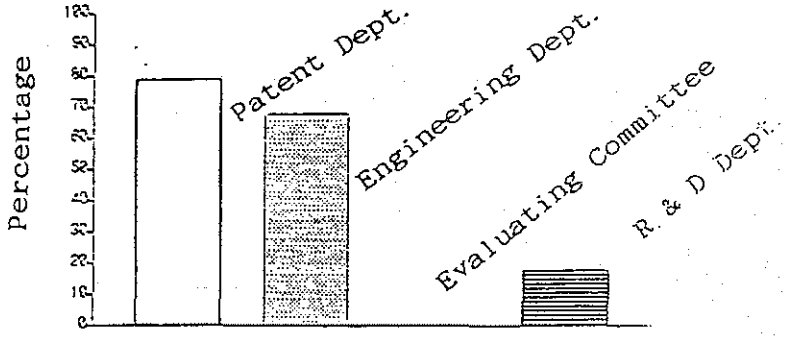


(Ref.)
Domestic application



Appraiser of request for exam.

Foreign request for exam.



(Ref.)
Domestic request for exam.

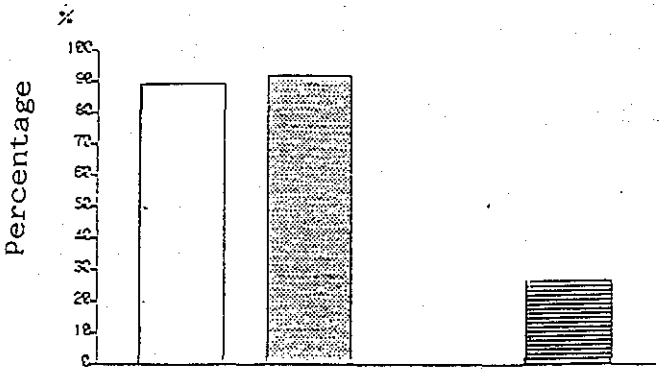
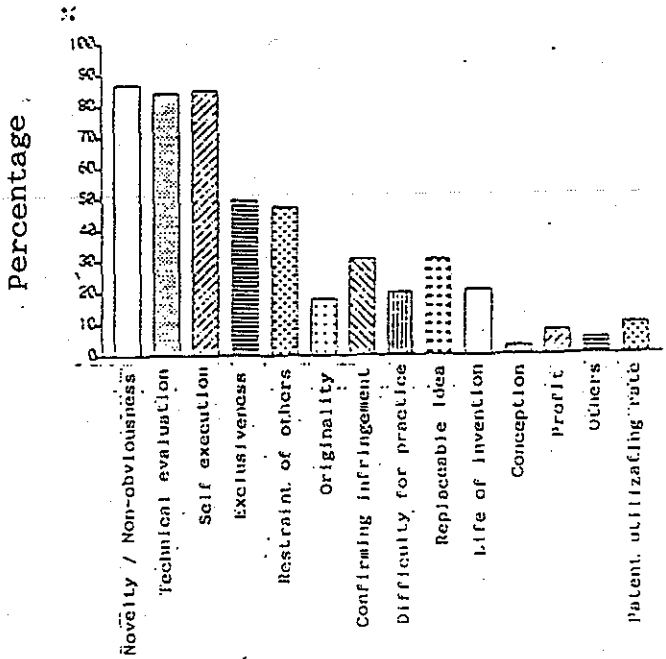


FIG. 15

Weight of evaluating items at foreign application



Weight of evaluating items at foreign request for exam...

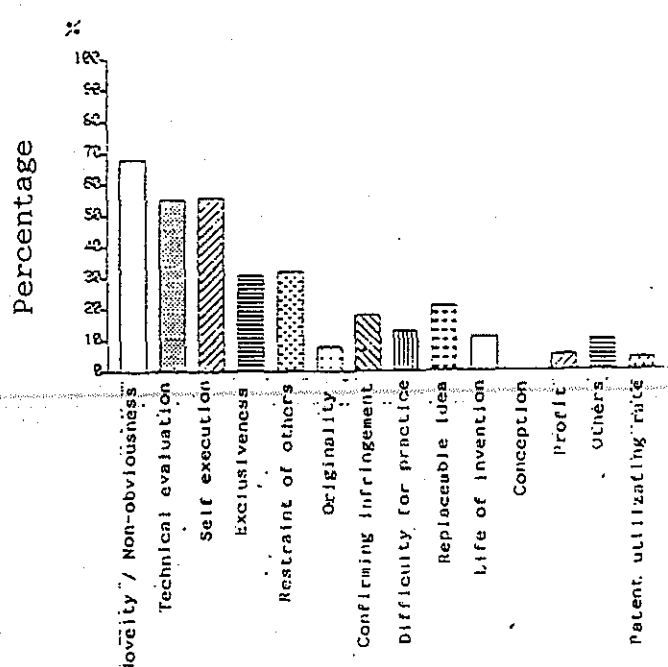


FIG. 16

Standard of deciding countries for foreign application

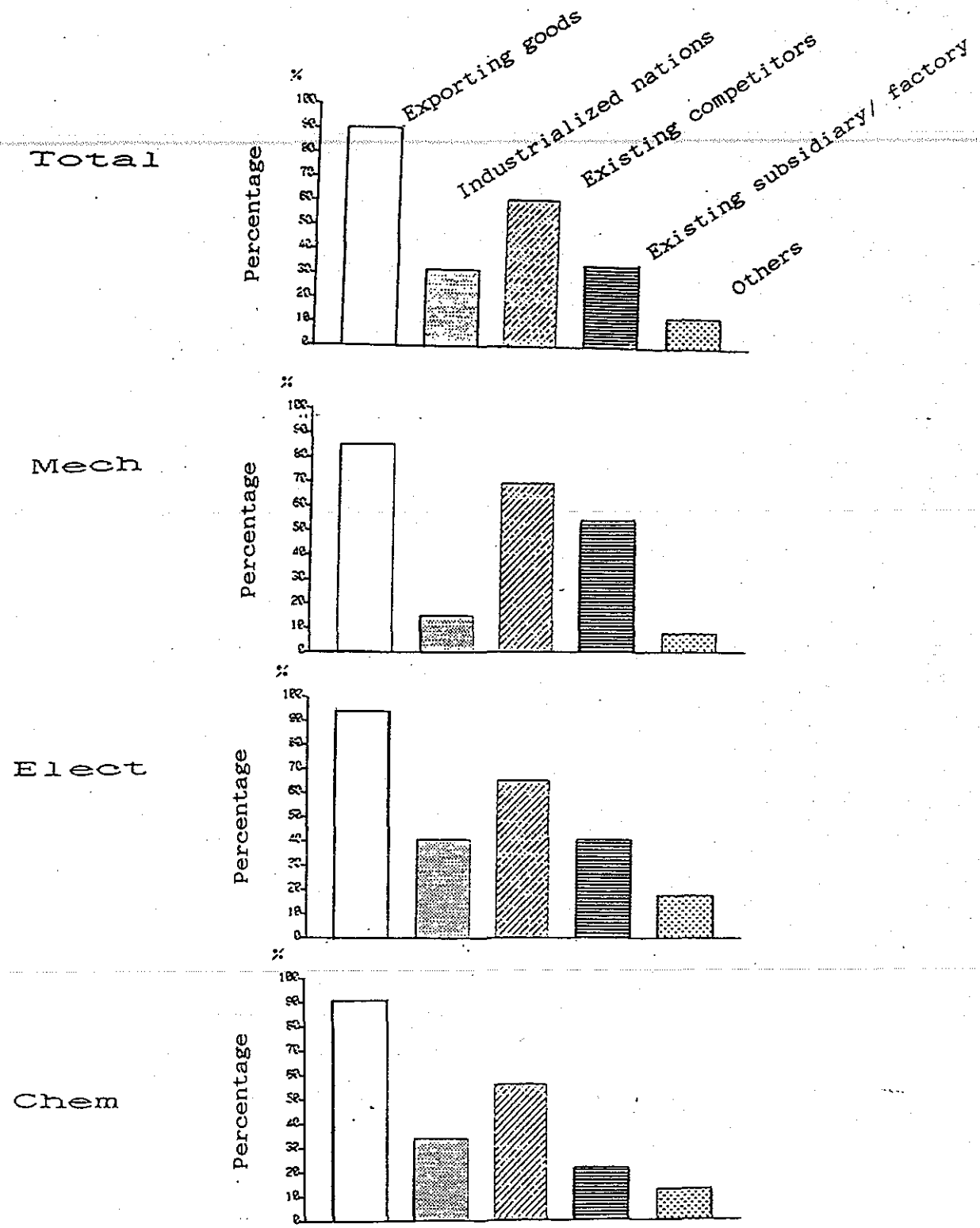


FIG. 17

Any changes for evaluating items comparing with those of 5 years ago

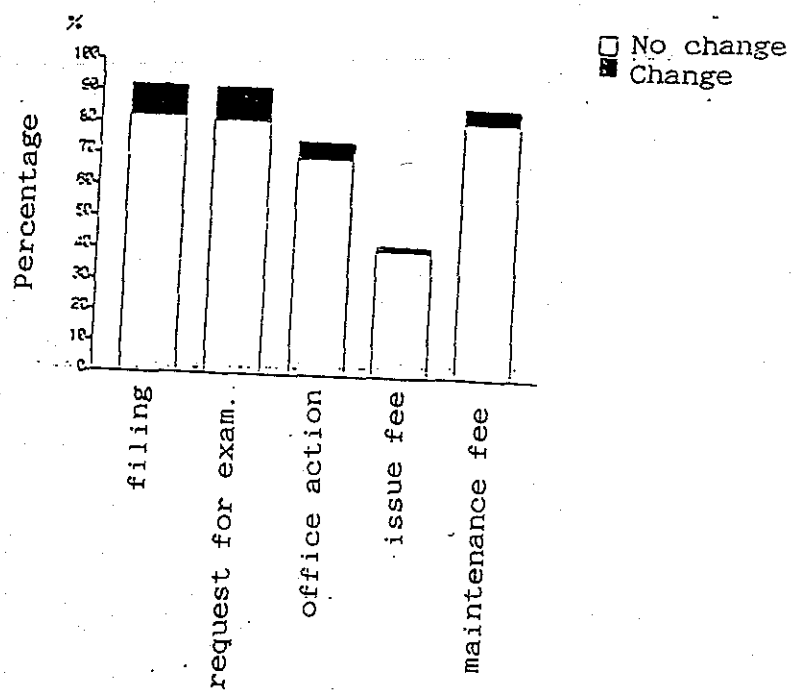
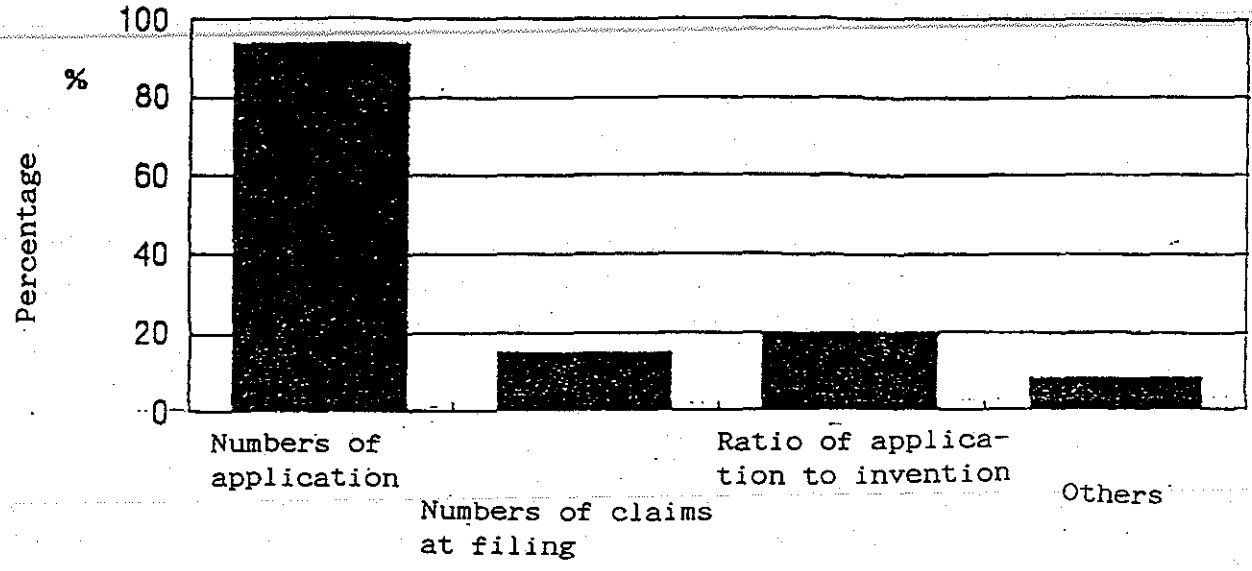


FIG. 18

Annual tendency for domestic application(subject)



Analysis items

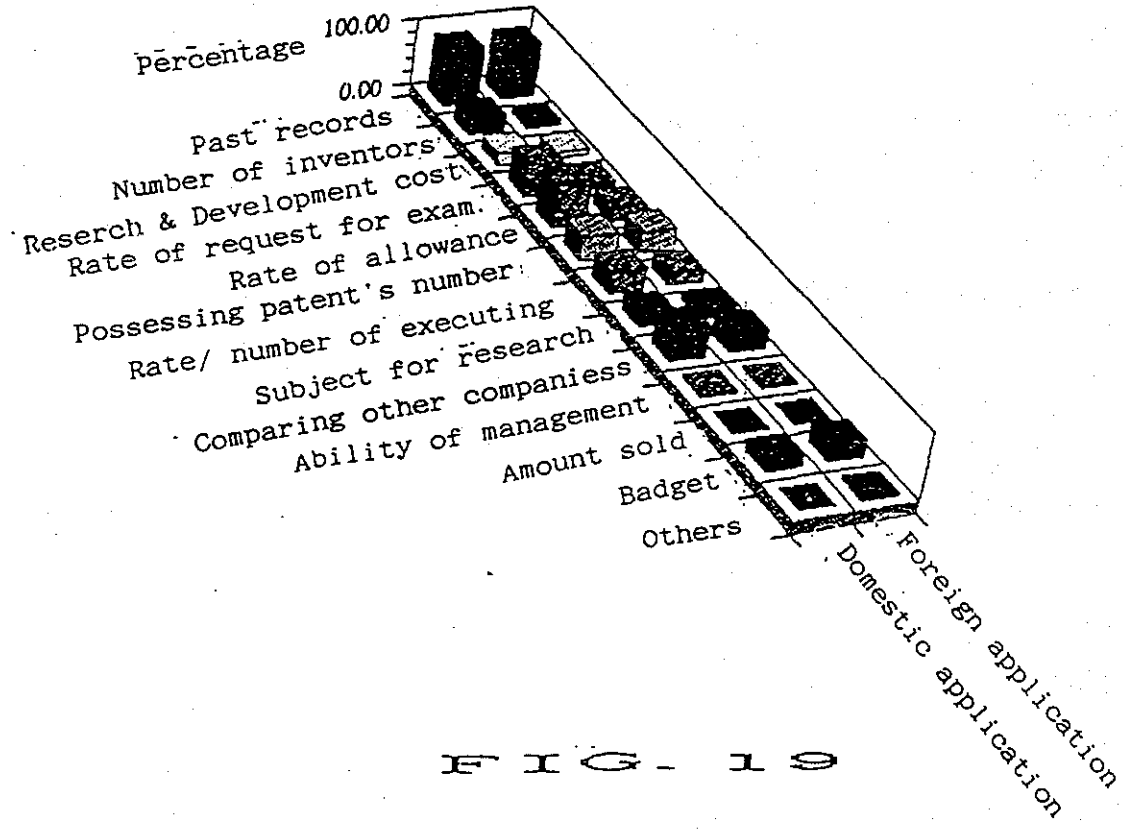


FIG- 19

PIPA 1st committee 2nd group (1991)

Survey for Evaluation of Invention

I - Information of Enterprise

Q1 Industry Category (Please Check One)

☐ Machine/Metal (Transpotation / Power plant / Machinary Equipment / Metal Products)

☐ Electronics (Electrical Equipment / Computor / Communication / Home Electrical Appliances / Auddio / Measuring / Electric Wire / Electric Parts)

☐ Chemicals (General Chemistry / Organic Chemistry / Rubber and Plastics Products / Paints / Petroleum / Petroleum Refining / Fiber / Pharmacy / Food / Cosmetics)

Q2 Which department in your company deal with patent ?

☐ legal dept. ☐ intellectual property dept.
☐ patent dept. ☐ research / design dept. ☐ enterprise dept.

Q3 How many employee invention disclosures were received by your patent department in 1990 ?

_____ cases

Q4 What was the percentage of your total number of invention disclosures for 1990 on which patent applications were filed in Japan ?

_____ %

Q5 How many Japanese technical review (like a "Statutory Invention Registration") did your company file in 1990 ?

_____ cases

Q6 What was the percentage of request for examination in 1983 ?

_____ %

Q7 What was the percentage of Japanese patent applications on which foreign patent applications were filed in any country ?

_____ %

Q8 What was the percentage of Japanese patent applications on which foreign patent applications were filed in the U.S. ?

_____ %

Ⅱ. Evaluation of Invention

Q1. What is the purpose of your filing patent application ?
(Please check up to three items from the below.)

- ☐ ① To obtain exclusive right for the specific items of your products.
  (intentionally exclude others from the same business field)
- ☐ ② To secure competitive rights in regard to other's rights.
  (i.e. contract with conflicting company)
- ☐ ③ To obtain the peripheral patent rights in regard to the basic patent owned by others and to enter new business field.
- ☐ ④ To prevent others from acquiring patent rights.
  (i.e. Statutory invention registration)
- ☐ ⑤ To obtain royalty.
- ☐ Others (Specify:)

Q2. Do you think that there are any changes for the above purposes comparing with those of 5 years ago ?

☐ Yes ☐ No

Q3. If the answer was Yes in Q2, what items were changed ? Please check ① ~ ⑤ in Q1 as items and , when and why did you changed them .

Changed items: _____ when: _____

why: _____

Q4. When does your company evaluate the Invention <u>from</u> the conception of the Invention <u>to</u> the abandonment after the registration ?
(Please check as many as preferable)

- ☐ At U.S. patent application ☐ At foreign application
- ☐ At request for examination
- ☐ At office action ☐ At payment of issue fee
- ☐ At payment of maintenance fee (How many times:)
- ☐ Others (Specify:)
- ☐ Have not evaluated

Q5. This question is only for companies which evaluate the Invention for plural times, please reply the following :

(1) Does your company refer the latest evaluation also for the next evaluation ?

☐ YES ☐ NO

(2) When is the most severe evaluation in your company ?

☐ From conception to deciding patent application
☐ At deciding patent application ☐ At request for examination
☐ At office action ☐ At payment of issue fee
☐ At payment of maintenanse fee (How many times:)
☐ Others (Specify:)

Q6. Which department evaluates the Invention at the following stage ? (Please check as many as preferable)

(1) At U.S. patent application

☐ Patent Dept. ☐ Engineering Dept.
☐ Evaluating Committee (Members are:)
☐ R & D Dept. (other than Engineering Dept.)

(2) At foreign patent application

☐ Patent Dept. ☐ Engineering Dept.
☐ Evaluating Committee (Members are:)
☐ R & D Dept. (other than Engineering Dept.)

(3) At request for examination (in Japan)

☐ Patent Dept. ☐ Engineering Dept.
☐ Evaluating Committee (Members are:)
☐ R & D Dept. (other than Engineering Dept.)

(4) At request for examination (in foreign countries)

☐ Patent Dept. ☐ Engineering Dept.
☐ Evaluating Committee (Members are:)
☐ R & D Dept. (other than Engineering Dept.)

(5) At office action

☐ Patent Dept. ☐ Engineering Dept.
☐ Evaluating Committee (Members are:)
☐ R & D Dept. (other than Engineering Dept.)

(6) At payment of issue fee

☐ Patent Dept. ☐ Engineering Dept.
☐ Evaluating Committee (Members are:)
☐ R & D Dept. (other than Engineering Dept.)

(7) At payment of maintenance fee

- ☐ Patent Dept.
- ☐ Engineering Dept.
- ☐ Evaluating Committee (Members are:)
- ☐ R & D Dept. (other than Engineering Dept.)

Q7. Which item and for what purpose does your company evaluate for the Invention ? (Please put single circles ○ for significant items) * If possible, please put double circles ◎ for the most significant three items.

(1) At Japanese patent application

Items

- ☐ Novelty / Non-obviousness
- ☐ Technical evaluation
- ☐ Exclusiveness
- ☐ Restraint of others
- ☐ Difficulty for practice
- ☐ Life of invention
- ☐ Replaceable idea (many or few for substitutional idea)
- ☐ Self execution
- ☐ Confirming infringement
- ☐ Conception
- ☐ Originality
- ☐ Profit
- ☐ Patent utilizating rate
- ☐ Others (Specify:)

Purpose

- ☐ Restricting application numbers
- ☐ Deciding the priority for management
- ☐ Selecting the indispensable patent right
- ☐ Classification
- ☐ Others (Specify:)

Are there any changes for the items comparing with those of 5 years ago ?

- ☐ No
- ☐ Yes (Which items :)

(2) At request for examination (in Japan)

Items

- ☐ Novelty / Non-obviousness
- ☐ Technical evaluation
- ☐ Exclusiveness
- ☐ Restraint of others
- ☐ Difficulty for practice
- ☐ Life of invention
- ☐ Replaceable idea (many or few for substitutional idea)
- ☐ Self execution
- ☐ Confirming infringement
- ☐ Conception
- ☐ Originality
- ☐ Profit
- ☐ Patent utilizating rate
- ☐ Others (Specify:)

Purpose

- ☐ Deciding the priority for management
- ☐ Selecting the indispensible patent right
- ☐ Others (Specify:)

Are there any changes for the items comparing with those of 5 years ago ?

- ☐ No
- ☐ Yes (Which items :)

(3) At office action

Items

- ☐ Novelty / Non-obviousness
- ☐ Technical evaluation
- ☐ Exclusiveness
- ☐ Restraint of others
- ☐ Difficulty for practice
- ☐ Life of invention
- ☐ Replaceable idea (many or few for substitutional idea)
- ☐ Self execution
- ☐ Confirming infringement
- ☐ Conception
- ☐ Originality
- ☐ Profit
- ☐ Patent utilizating rate
- ☐ Others (Specify:)

Purpose

- ☐ Deciding the priority for management
- ☐ Selecting the indispensible patent right
- ☐ Others (Specify:)

Are there any changes for the items comparing with those of 5 years ago ?

- ☐ No
- ☐ Yes (Which items :)

(4) At payment of issue fee

Items

- ☐ Novelty / Non-obviousness
- ☐ Technical evaluation
- ☐ Exclusiveness
- ☐ Restraint of others
- ☐ Difficulty for practice
- ☐ Life of invention
- ☐ Replaceable idea (many or few for substitutional idea)
- ☐ Self execution
- ☐ Confirming infringement
- ☐ Conception
- ☐ Originality
- ☐ Profit
- ☐ Patent utilizating rate
- ☐ Others (Specify:)

Purpose

☐ Selecting the indispensable patent right

☐ Others (Specify:)

Are there any changes for the items comparing with those of 5 years ago ?

☐ No

☐ Yes (Which items :)

(5) At payment of maintemnance fee

Items

☐ Novelty / Non-obviousness ☐ Technical evaluation

☐ Exclusiveness ☐ Restraint of others

☐ Difficulty for practice ☐ Life of invention

☐ Replaceable idea (many or few for substitutional idea)

☐ Self execution ☐ Confirming infringement

☐ Conception ☐ Originality

☐ Profit ☐ Patent utilizating rate

☐ Others (Specify:)

Purpose

☐ Selecting the indispensable patent right

☐ Others (Specify:)

Are there any changes for the items comparing with those of 5 years ago ?

☐ No

☐ Yes (Which items :)

Q8. This question is for the foreign applications.

(1) When does your cpmpany select and decide the foreign application ?

☐ At the same time of Japanese application

☐ After the Japanese application

☐ Others (Specify:)

(2) How does your company decide countries for foregin application ?

☐ Exporting goods ☐ Industrialized nations

☐ Existing competitors ☐ Existing subsidiary/ factory

☐ Others (Specify:)

(3) Which item and for what purpose does your company evaluate for the Invention ? (Please put single circles ○ for significant items) * If possible, please put double circles ◎ for the most significant three items.

(3-1) At foregin patent application

Items

- ☐ Novelty / Non-obviousness
- ☐ Exclusiveness
- ☐ Difficulty for practice
- ☐ Technical evaluation
- ☐ Restraint of others
- ☐ Life of invention
- ☐ Replaceable idea (many or few for substitutional idea)
- ☐ Self execution
- ☐ Conception
- ☐ Profit
- ☐ Confirming infringement
- ☐ Originality
- ☐ Patent utilizating rate
- ☐ Others (Specify:)

Purpose

- ☐ Restricting application numbers
- ☐ Deciding the priority for management
- ☐ Selecting the indispensable patent right
- ☐ Classification
- ☐ Others (Specify:)

Are there any changes for the items comparing with those of 5 years ago ?

- ☐ No
- ☐ Yes (Which items :)

(3-2) At request for examination

Items

- ☐ Novelty / Non-obviousness
- ☐ Exclusiveness
- ☐ Difficulty for practice
- ☐ Technical evaluation
- ☐ Restraint of others
- ☐ Life of invention
- ☐ Replaceable idea (many or few for substitutional idea)
- ☐ Self execution
- ☐ Conception
- ☐ Profit
- ☐ Confirming infringement
- ☐ Originality
- ☐ Patent utilizating rate
- ☐ Others (Specify:)

Purpose

- ☐ Deciding the priority for management
- ☐ Selecting the indispensable patent right
- ☐ Saving cost
- ☐ Others (Specify:)

Are there any changes for the items comparing with those of 5 years ago ?

☐ No
☐ Yes (Which items :)

Q9. Which subject and which items does your company use in order to evaluate the annual tendency for the applications ?

(1) Domestic application

① Subject

☐ Number of applications to USPTO
☐ Number of claims at filing applications
☐ Ratio of application to invention
☐ Others (Specify:)

② Items

☐ Past records
☐ Reserch & Development cost
☐ Possessing patent's number
☐ Subject for research
☐ Ability of management
☐ Badget
☐ Number of inventors
☐ Rate of allowance
☐ Rate or number of execution
☐ Comparing other companies
☐ Amount sold
☐ Others ( )

(2) Foreign application

① Subject

☐ Number of applications to USPTO
☐ Number of claims at filing applications
☐ Ratio of application to invention
☐ Others (Specify:)

② Items

☐ Past records
☐ Reserch & Development cost
☐ Rate of allowance
☐ Rate or number of executi
☐ Comparing other companies
☐ Amount sold
☐ Others (Specify:
☐ Number of inventors
☐ Rate of request for exam.
☐ Possessing patent's number
☐ Subject for research
☐ Ability of management
☐ Badget)

Q10. Does your company use an evaluation sheet and/or form in order to evaluate the invention ?

☐ YES ☐ NO

Q11. Please put your comment if your company has any problems in regard to the present evaluation system for the invention.

Thank you for your co-operation.

(1) Title: ADMINISTRATION OF INTELLECTUAL PROPERTY IN THE "PRO-PATENT " ERA

(2) Date: October, 1991 (The 22nd Rochester General Meeting)

(3) Source:
① Source: PIPA
② Group : JAPAN
③ Committee: First group of the first committee

(4) Authors:

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Nakajima	Toshio	Mazda Motor Corporation
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(5) Keywords: Intellectual property right, Pro-patent, Campaign for enlightement ,Invention-Harvest , Education.

(6) Statutory Provisions:

(7) Abstract: In the 1980s, the U.S. Administration shifted the basis for intellectual property policy from so-called " Anti-Patent" to " Pro-Patent". This change has lead not only the USA, but also other countries of the world, to more highly value intellectual property rights.

In order to better grasp the activities of Japanese companies to meet this philosophical change, we collected and compiled information by means of questionnaires which we distributed throghout the member companies of PIPA Japan with respect to changes in intellectual property administration business by Japanese companies in the last five years.

As general findings of our survey, we found that the trend of attaching more importance to intellectual property rights hasbeen growing also in Japanese industry. To put it in more concrete terms a trend is developing of more assertive utilization of intellectual property rights owned by Japanese companies accompaied by more conscientious efforts to avoid infringement of their companies' rights.

As to our inquiries posed on patent applications, Japanese companies have an inclination to utilize dominant priority rights (early filings) and to form patent portfolios which consolidate the contents of applications for obtaining stronger rights.

Consequently, closer cooperation between the corporate patent section, the research and development (R & D) section, and the business section is required as compared with the past. Moreover, invention activities have been invigorated and education activities at each of the above corporate sections has also seen greater emphasis.

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1. Introduction

In the 1980's, the U.S. Administration adopted a policy ofstrengthening intellectual property rights to facilitate achievement of the goal economically American and an yielding increased of financial profits. This policy also aimed at changing the economic structure from an industrial productivity-oriented one to a more intellectual creativity-oriented one. Immediate interests were, however, to stop any further lowering of competitiveness of American industries and the increases in the trade deficit. As results, the following new trends have emerged in the intellectual property field in the U.S.:

I. Broadening the interpretation of scope of the coverage rights of the patent claims (Doctrine of Equivalents)

II. Increasing judgements where upholding validity of issued patents. (Conversely, lowering of patent invalidity holdings); and

III. Soaring the damage awards, reconciliation (settlement) fees and license fees.

Also, the pro-patent trend of greater recognition of and utilizing the intellectual property rights more effectively as an actual corporate asset has been increasing.

After the middle of 1985, the number of Japanese companies involved in intellectual property litigation in the U.S. increased due in large parties to the effects at the new policy of attaching new importance to the protection of intellectual property rights in the U.S. Some Japanese companies paid high amounts inlicense fees and settlement, fees, and others absorbed high amounts of in litigation costs even though they prevailed in the lawsuit.

The decided trend of utilizing intellectual property rights owned by companies more effectively and reconsideration of patent strategies, is seen at least in part of Japanese industry to the extent of the companies responding to our survey.

Further, movements are in progress to set up various programs for developing creativity of employees, to promote invention by offering a creative corporate environment and bolstering thetraining of legàl and patent experts having technical expertise in the companies.

As brought out above, this report introduces the results of a study based on a questionnair disseminated to the Japanese PIPA member companies on the change of intellectual property administration business in the companies for the past five years,especially in aspects of practical business covering policy-making and invention-harvest to patent-filing, in the " pro-patent" era.

This survey theme was adopted as the panel discussion theme in the 22nd general meeting of PIPA. Therefore, the same questionnaire was distributed to companies in the U.S. and a separate report has been prepared based on it. It is recommended that you compare these two reports to achieve an understanding of the points common to Japan and U.S. and also the points of difference from each other. We trust this report will be of assistance to you in administrating intellectual property matters in the future.

2. Summary of Investigation

We asked the cooperation of 84 member companies of PIPA Japan (as of July, 1991) for the questionnaire on the Japan side , and obtained reply answers from 64 companies conducting business in the follwing areas:

Machinery, Metal: Transportation 8, Machinery and machine tools 3, Iron and steel and other metals 3
Electric Appliances: General electrical/machinery 6, Computers 1, Telecommuhication 6, Measuring instruments 1,Electrical/wires/cables 2, Electronic components 1
Chemicals: General chemicals 11, Organic chemicals 2, Petrochemicals 5, Fibers 4, Medicaments 5, Food 3, Gum 1, Plastics 2

Relationships between the number of applications filed in 1990 in Japan and nature of business are broken down as follows:

Table 1

Number of filed applications	Machine	Electric	Chemical	Total
1 - 99	0	1	5	6
100 - 999	5	2	25	32
1000 or more	9	14	3	26
Total	14	17	33	64

Illustration 2-1 Nature of business of responding companies (64 companies)

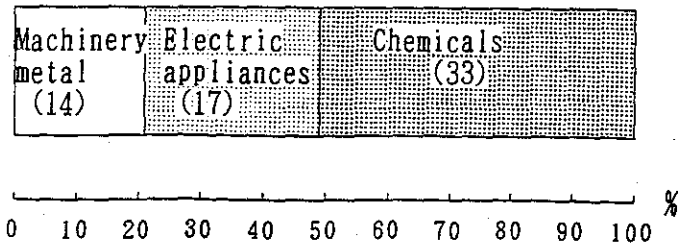
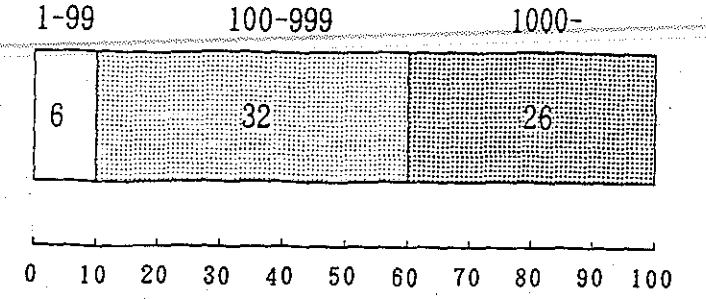


Illustration 2-2 Number of applications filed in 1990 by the 64 responding companies (64) in 1990



3. Investigation Results

3-1 Policy

Change made in patent policies of the companies in the last 5 years were investigated.

3-1-1 Measures to avoid infringement of intellectual property rights owned by other companies

40 companies (63%) of the 64 companies have in the last 5 years conducted investigations to determine if there are other companies' intellectual property rights which may be infringed by the company before developing new products.

Also, the scope of the predevelopment investigation is reported to be broadened as compared with the past practices. 39 companies (61%) answered that the number of predevelopment situations in which they seek expert opinions has increased. Further, one company out of 5 companies has come to broaden the potential equivalents coverage interpretation of the claims as compared with the past.

Other answers are:

① Seeking of expert opinions on possible infringement of other companies' intellectual property rights is increased.

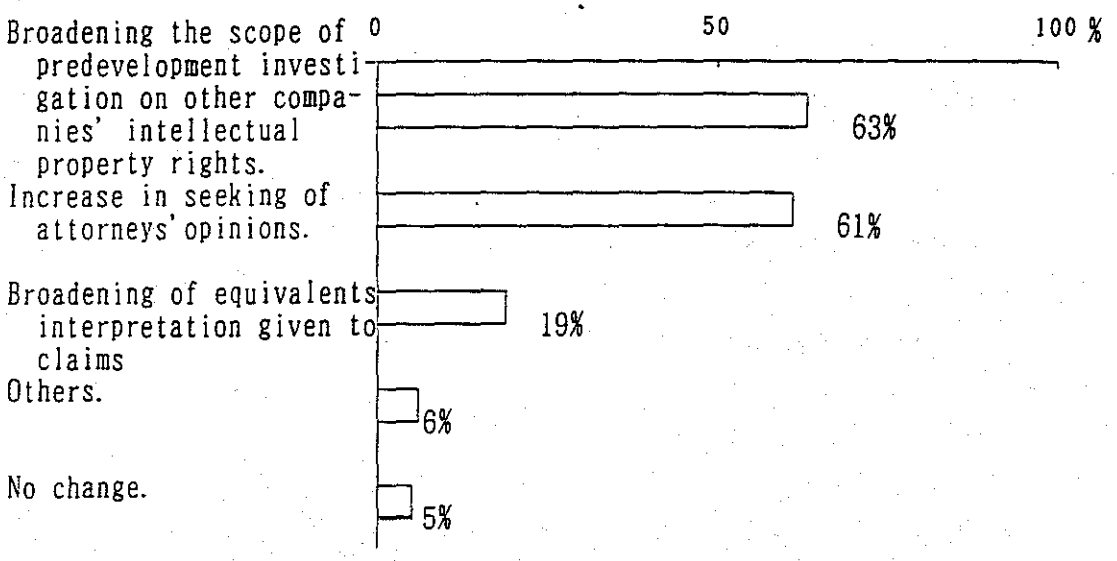
② Setting up of expert group dealing with the question on other companies' rights.

③ Holding lectures by attorneys and professors.

Only 3 companies answered that they made no changes. (Illustration 3-1)

It should be apparent from the above that many companies have come to pay closer attention to the intellectual properties owned by other companies and to give serious consideration and thought as to how to cope with potential infringement situations.

Illustration 3-1



3-1-2 Monitoring of other companies' infringement of the intellectual properties owned by the Company

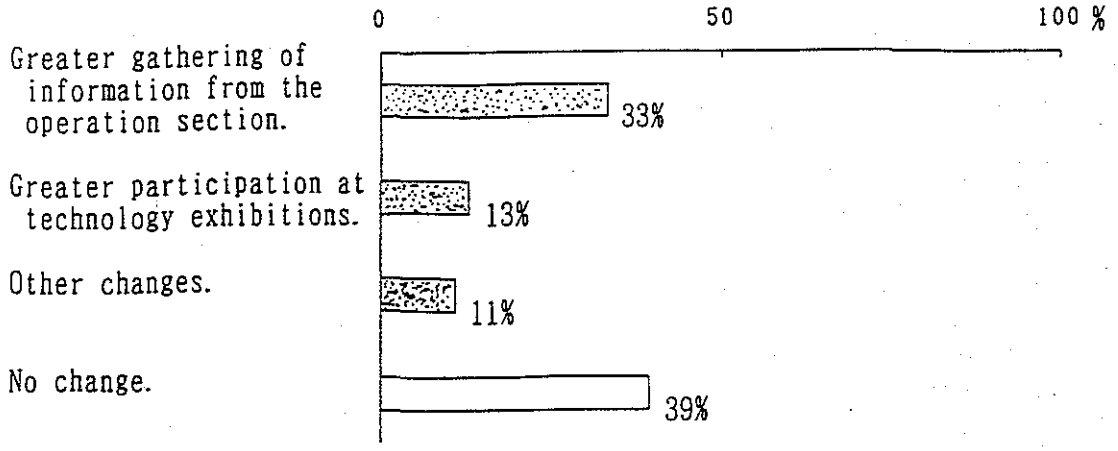
An answer that there has been some change in this regard was given by 61% (39 companies). The remaining (39%, 25 companies) answered that there has been no change.

21 companies (33%) out of the 64 responding companies pointed out that obtaining information from the operating section has increased. 8 companies (13%) admitted that they increased their staff attendance and participation of various technology exhibitions.

Other changes reported were: greater gathering of other companies' catalogues for examining other companies' products; examining their companies' published reports intensively; greater analysis of other companies' products; and setting up of a project for monitoring the possible infringement of the intellectual properties owned by the Company by other companies' activities. (Illustration 3-2)

In general, the trend of monitoring other companies' possible infringement of the intellectual properties owned by the Company has remarkably increased as compared with past practices. The companies are becoming gradually more assertive and effective in utilizing the Company's intellectual property rights.

Illustration 3-2



3-1-3 Licensing to other companies

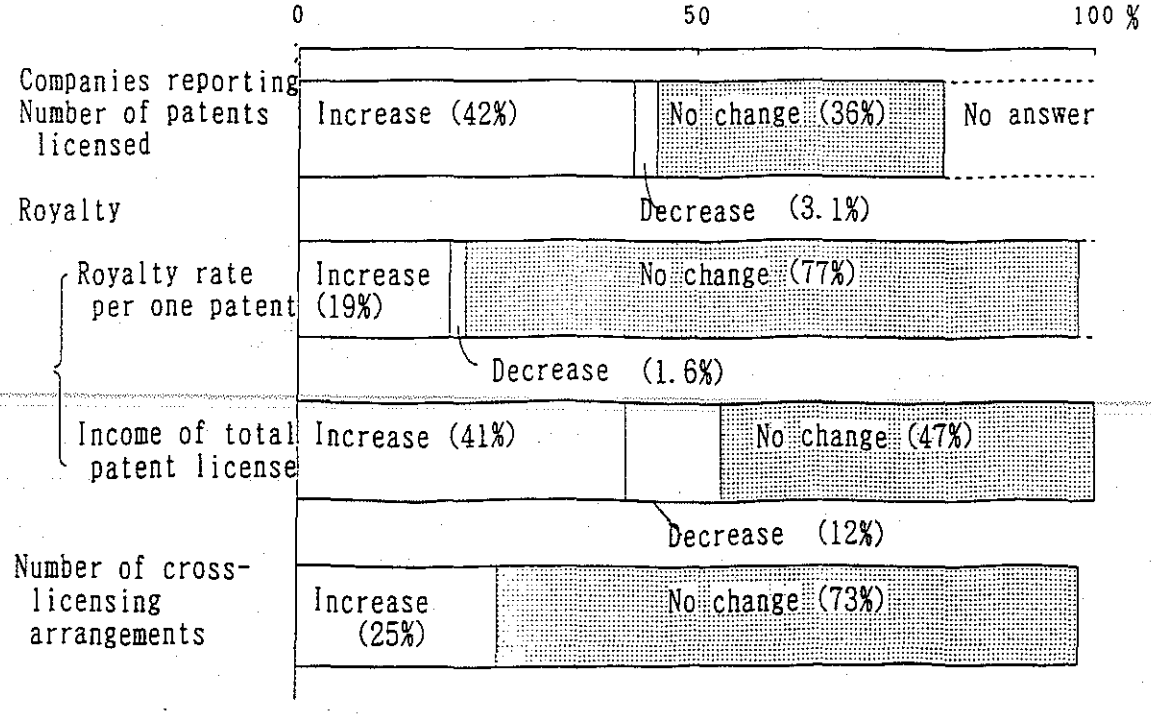
More than half of the companies giving responses reported that the number of their patents which they licensed to other companies has increased. There is not much of a change in royalty rate, however, royalty profit as a whole increased.

16 companies (25%) out of the 64 companies giving responses answered that the number of cross-licensing arrangements has increased. Reduction in cross-licensing was not reported by any company.

Other answers suggest that the tendency of selling the Co mpany's intellectual property rights outright beyond more licensing has been growing, which was a trend noticed by one responding company. Another company answered that their licensing to foreign companies has increased.

In general, it can not be disputed that licensing has become increasingly practiced as compared with the past.(Illustration 3-3)

Illustration 3-3



3-1-4 Change in preparing the Japanese text of application

(1) Scope of claim

(i) Number of claims

The ratio of the companies answering that the number of claims increased for the last 5 years was 70%. 55% of the companies answering affirmatively here stated that the reason was utilization of multiple claiming systems. It is considered that the number of claims increased as a result of by utilization of implemented as from 1988.(Illustration 3-4,3-5)

The companies answering that the number of claims decreased occupies 6%; these are companies doing business concerning chemicals. The reason they pointed out for this reduction in the number of claims per application is the reduction of expenses. It is considered that they reduced the number of claims by reducing number of claimed embodiments because the costs increase in accordance with the number of claims. (Illustration 3-5)

Illustratrion 3-4 Change in number of claims in applications filed in Japan in the last 5 years

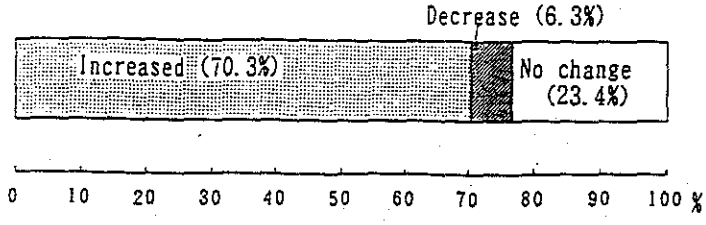
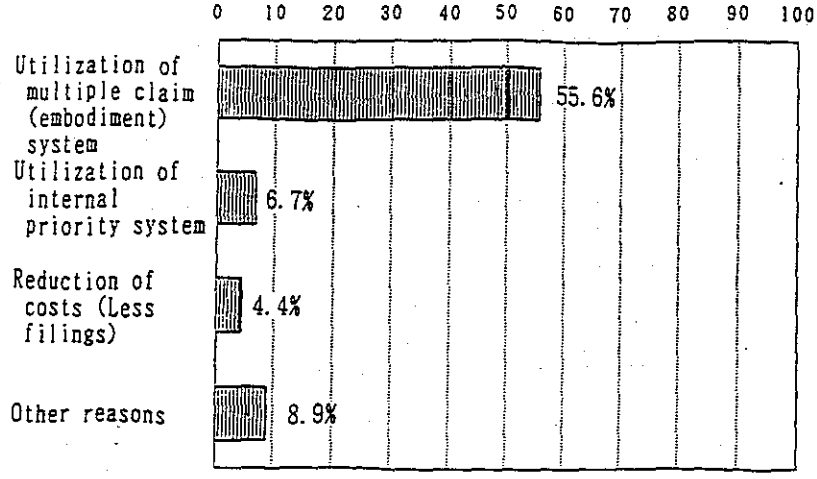


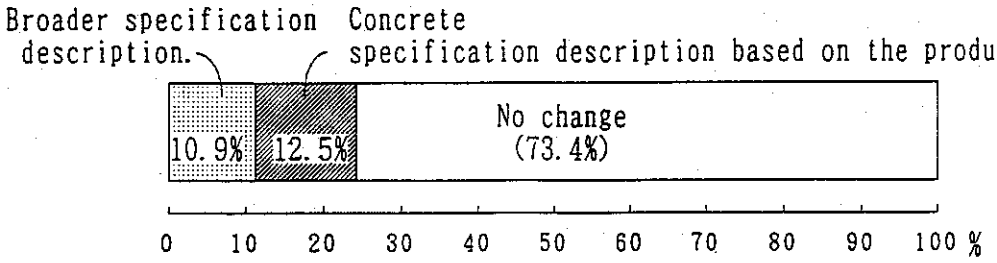
Illustration 3-5 Reason for increase of number of claims (Ratio based on the companies giving answers that the number of claims increases)



(i) Description of scope of claim

The ratio of companies answering that there has been no change in the description of claim scope is 73%. While there is no dramatic change in this period, some companies did however indicate the drafting of specifications which rendered the claim scope susceptible to broader interpretation in order to broaden the scope of rights (11%). On the other hand, some companies describe the invention in more concrete terms based on the actual products in order to clarify the scope of rights and facilitate enforcement of the rights (13%).

Illustration 3-6 Change in specification description of the scope of claim in Japanese applications filed in the lasy 5 years



(2) Change other than in respect of the scope of claim

More than half of the companies answered that some changes have been made in preparing the text of application other than in respect to descriptions of the scope of the claim.

75% of the companies gave answers that there have been some changes in so far as they have come to describe more examples than in the past. The reason is considered to be that they desire to make the content of application more complete by increasing the examples by utilizing the multiple claiming system and dominate priority rights.

Illustration 3-7 Change in preparation of the text of application other than in respect of the scope of claim in Japan application

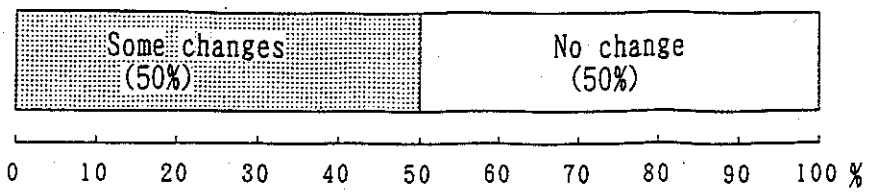
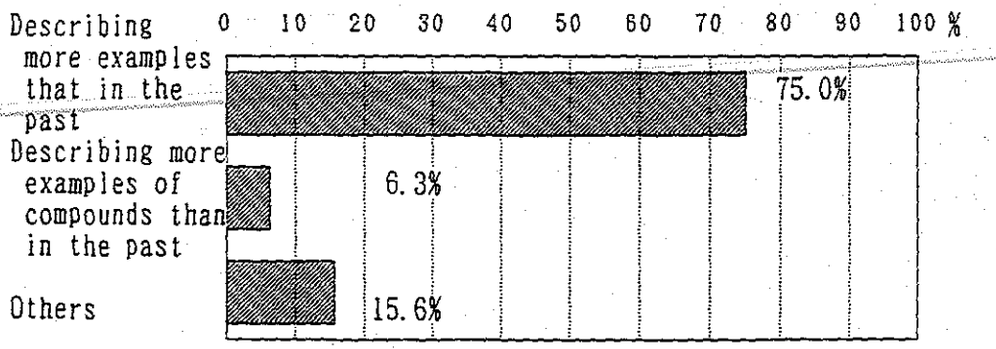


Illustration 3-8 Change in preparation of the text of application other than in respect of the scope of cliam in application for Japan (Ratio to the numbers answering that there have been some changes.)



3-1-5 Change in application for Japan

(1) Application policy

58% of the companies answered that they have made some changes.

51% out of the above companies answered that they have come to attach an importance to its workability (reduction to practice), and, on the other hand, 27% answered that they have come to make an application based on the conception of the inventnion alone at the idea making stage.

Other answers were: earlier filing of the application; and positive application of peripherial invention (defense application).

Illustration 3-9 Change of application policy in application for Japan

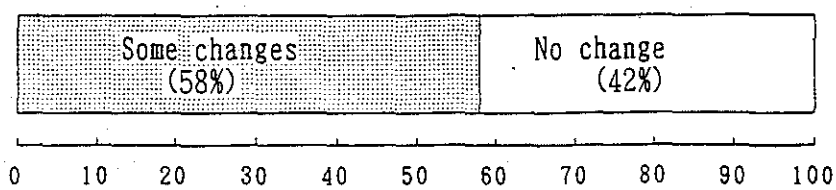
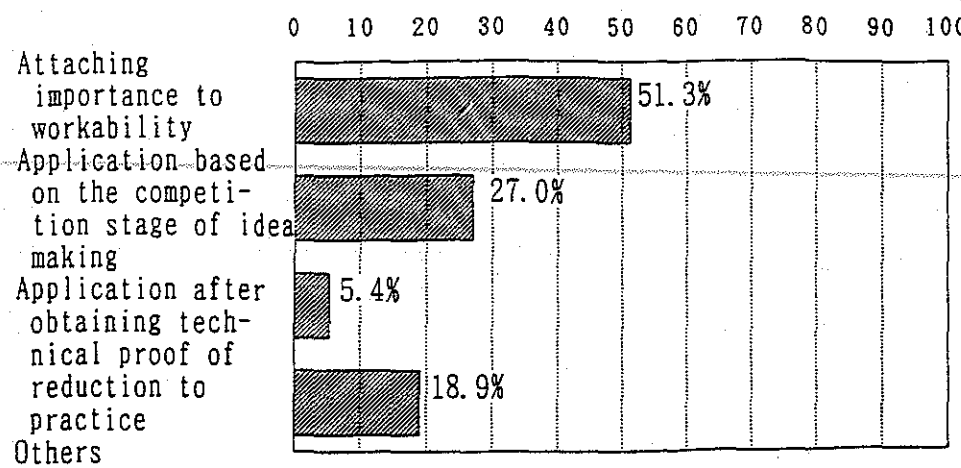


Illustration 3-10 Change of application policy in application for Japan (Ratio of the number of companies answering that there have been some changes)



(2) System which has come to be utilized

The ratio of the companies which have come to utilize the internal (dominant) priority system is 80%. (Illustration 3-11) The reasons were:

1) Broadening the scope of rights
2) Obtaining strong rights
3) To cope with the addition of examples
4) Making the content of application complete
5) Securing the application date by earlier application

* Now, turning to industrial variations, 88% of the companies in the "Chemicals" group answered that they have "started utilizing the internal priority system", followed by 79% of those in the "Machinery, Metal" group and 70% in the "Electric Appliance" group. Chemical companies are outstanding in this respect.

There are several reasons for this tendency. First, chemical companies have a tendency that they first file applications with broad, general technological concepts supported with a small number of examples for the establishment of earlier basis for internal priority. Later, additional examples are added to the earlier filed applications. Another type is to expand the coverage, wherein newly discovered compounds which have the same chemical effects as those described in the earlier filed applications are added so as to broaden the scope of claims.

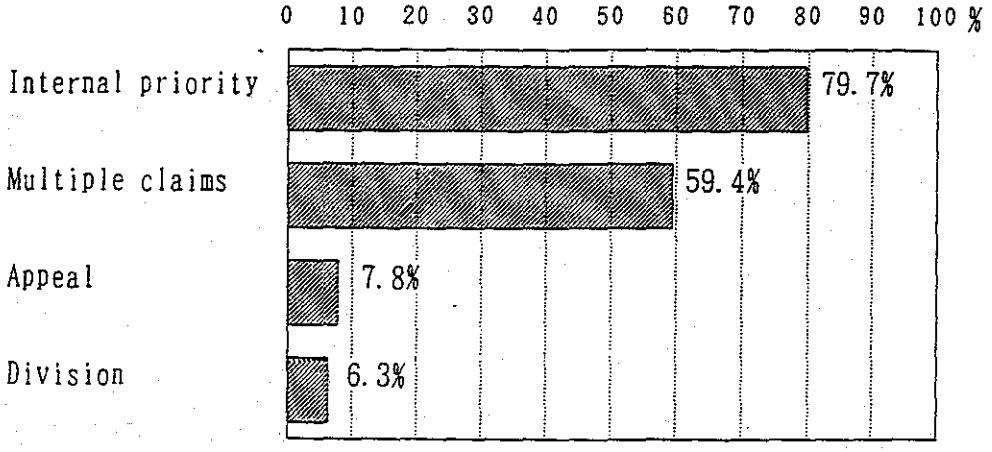
- Companies utilizing the multiple claim system account for 59% of the answered companies. The following are the major two reasons.

1) Broadening the scope of claims
2) Securing the right by way of supplemented subject matters, efficient filing procedures, etc.

- Utilization of the multiple claim system vairies depending upon industries and 55% of chemical companies, 59% of machinery and metal compnies and 70% of electric appliance companies utilize this system. Obviously, electric appliance companies are outstanding.
- The internal priority system was implemented in 1985 and the

multiple claim system in 1988. Utilizing the new systems adopted in the past 5 years, companies seem to enforce their applications one by one.

Instruction 3-11 systems actively adopted for national applications



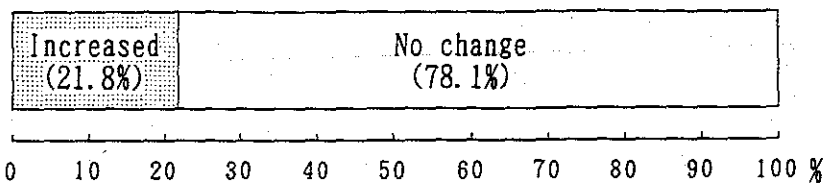
3-1-6 Change in preparing the text of application for U.S.

(1) Scope of claim

(i) Number of claim

The ratio of companies answering that the number of claims has been increased within the last 5 years is approximately 22%. Changes are less than those in corresponding applications for Japan.

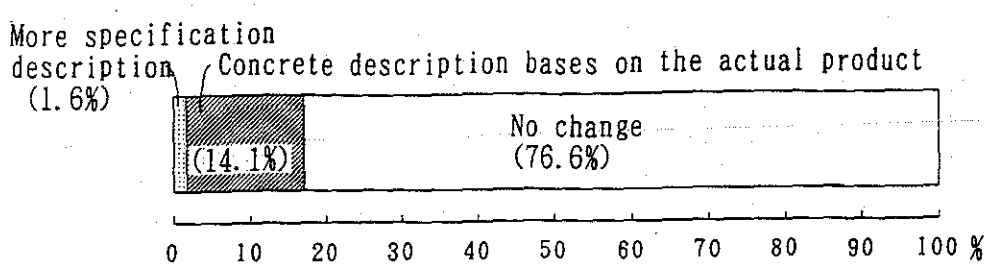
Illustration 3-12 Change of number of claims in application for U.S. in the last 5 years



(ii) Description of scope of claim

77% of the responding companies answered that there have been no change. No remarkable change has been made in this regard.

Illustration 3-13 Change of description of scope of claim in application for U.S. in the last 5 years



(2) Changes other than with respect to scope of claim

45% of the companies answered that there have been some change in preparing the text of application other than with respect to the scope of the claims.

83% out of the above companies answered that they have come to describe more examples than in the past (Illustration 3-14).

The reason is considered to be that they intend to make

the content of application perfect and complete in order to obtain strong rights, affected by the facts that in application for Japan, number of examples have been increased by utilizing multi claiming systems and to dominate the priority system.

Illustration 3-14 Change in preparing the text of application other than with respect to scope of claim in an application for U.S.

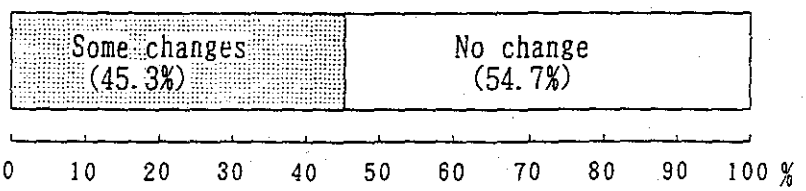
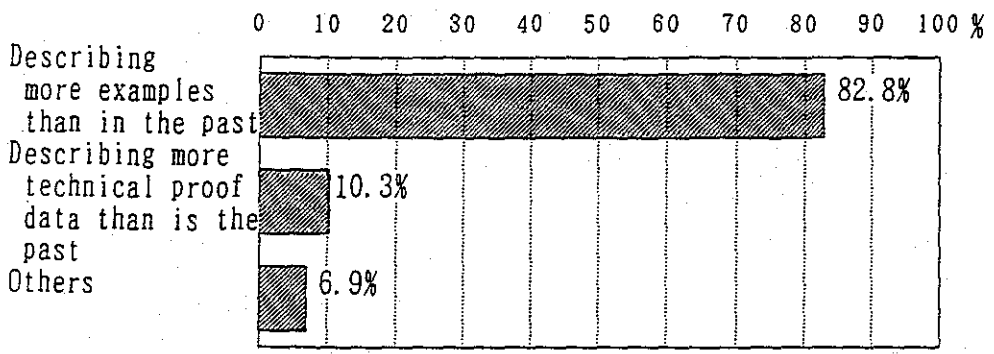


Illustration 3-15 Change in preparing the text of application other than in respect of scope of claim in application for U.S.



3-1-7 Change in application for U.S.

(1) Application policy

67% of the companies answered that there have been some change in the last 5 years.. It is more than the ratio in application for Japan. (Illustration 3-16)

72% out of the above companies answered that they have come to attach importance to the workability (reduction to practice). 12% answered that they come to make application after obtaining the technical proof of the reduction to practice. (Illustration 3-17)

Illustration 3-16 Change of application policy in application for U.S.

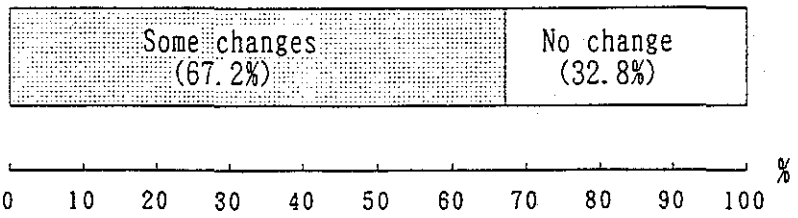
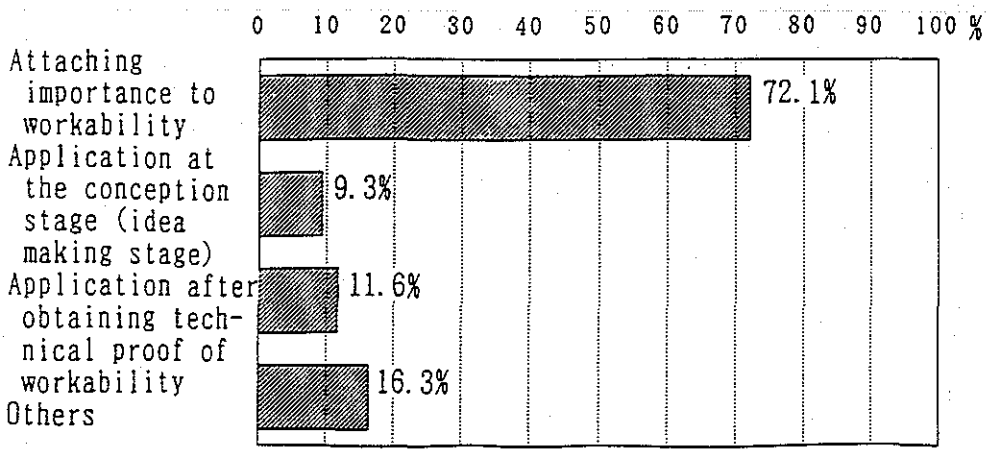


Illustration 3-17 Change of application policy in application for U.S. (Ratio based on number of responding companies answering that there have been some change)

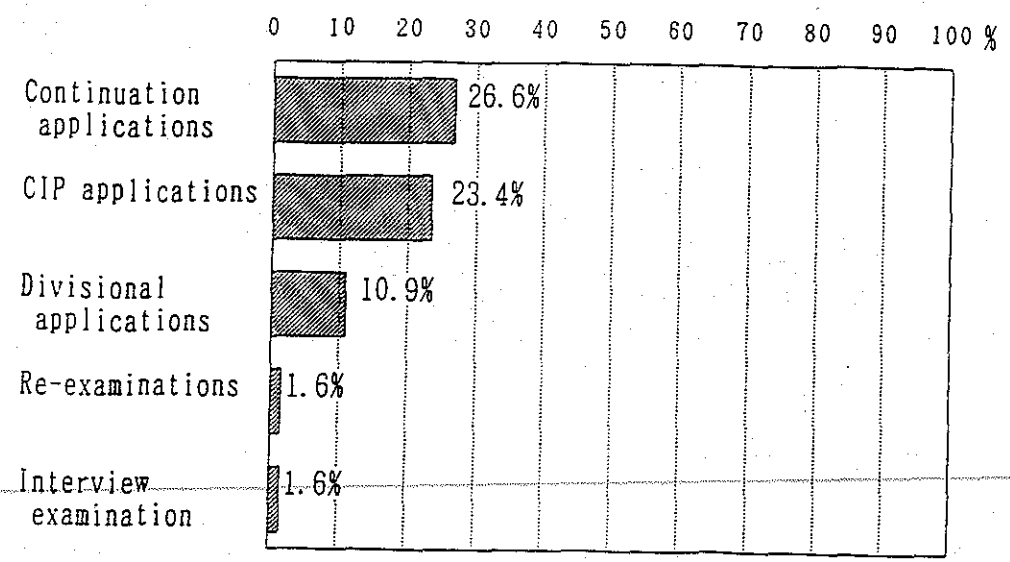


(2) System which has come to be utilized

Ratio of companies which have come to uitlize more continuation applications or a cip-application is 27% and 23%, respectively. As a whole, there have been no remakable change. On a type of business basis, 33% of the chemical companies have come to increase the use of continuation applications and 27% of those have come to increase the use CIP applications. There latter data are relatively higher figures than those found as a whole.

The reason that there is less filing system use changes in U.S. filings in comparison with the Japanese application is considered to be that there have been no remarkable change in system in comparison with Japanese application filing system.

Illustration 3-18 Filing systems which have come to be increasingly utilized



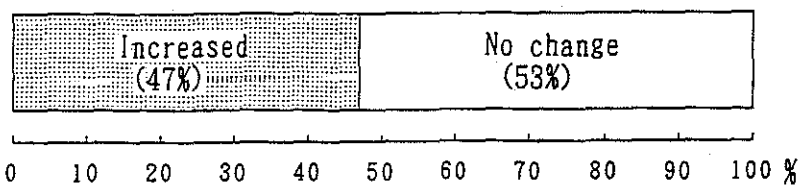
3-1-8 Maintenance and abandonment of patent rights in Japan

Almost half of the companies increased the number of abandonment in the last 5 years. The number of abandonment has not been changed in the remaining half of the companies. A decrease in abandonments has been occurred in any company. (Illustration 3-19)

80% of the companies answering that the number of abandonments increased stated that it is because they intend to increase the number of abandonment of unnecessary rights in order to apply savings in maintenance fees to the costs of the new applications.

Almost the same trend as the overall trend is seen in the machine companies in particular. On the other hand, the ratio of other types of the companies the answering was reversed. That is, in chemical companies, 30% increased and 70% made no change, and, conversely, in electric companies, 70% increased and 30% made no change.

Illustration 3-19 Change in number of abandonments of rights in Japan in the last 5 years



3-1-9 Maintenance and abandonment of patent rights in US.

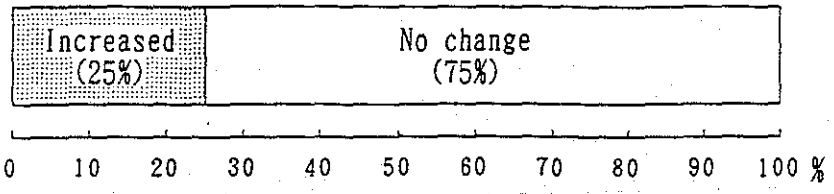
The ratio of companies increasing the number of abandonment is 1/4, and the ratio of companies which made no change is 3/4. No company stated a reduction in this regard.

The reason for increasing abandonments is floating the savings to the cost of new applications for 90% of the companies.

One company stating "no change" means not to have a policy of abandonment in principle, and another one company stating " no change" is meant as maintaining the patent right which has a possibility of cross-licensing.

On a type of business basis, no specific difference is seen. Approximately 20-30% increased the number of abandonment, and remaining made no change. (Illustration 3-20)

Illustration 3-20 Change in the number of abandonments of the U.S. patent rights in the last 5 years



3-1-10 Corporate organization

Name of organization dealing with the patents is as follows:

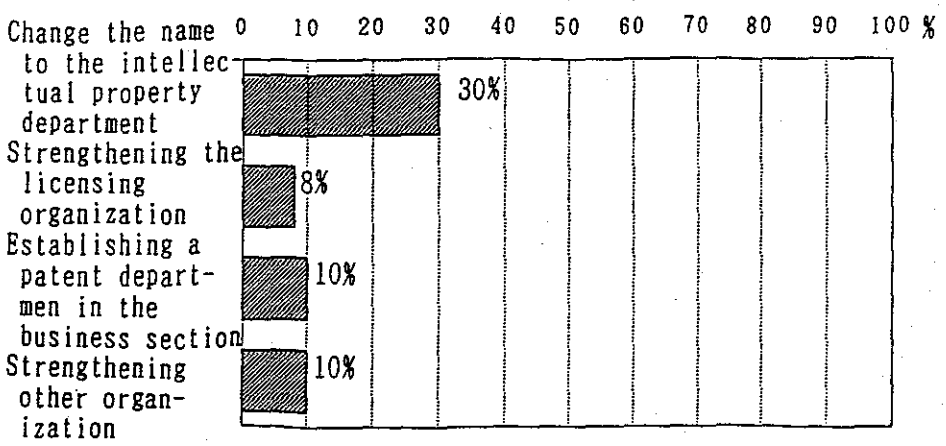
Intellectual property department	17 companies
Technical department/research center	1
Patent department	42
Legal department	1

Promotion of the position, expansion of the role and strengthening of authority and personnel are seen in the patent department. For example, approximately 30% of the companies are expanding and strengthening the responsibility by extablishing an intellectual property department or intellectual property office which has the responsibility of obtaining and utilizing the intellectual property rights including copyrights, trade-secrets and licensing law and litigation concerning them, in addition to obtaining the patent rights, which has been the responsibility of patent department. This tendency is remarkable in the electric companies, and 70% of them have changed their organization or the name of department along these lines.

A patent department (or intellectual property department) has been newly established in the business section or research center,and not only in the main office, in 8% of the companies.

Approximately 30% of the machine companies stated that they have set up a special group or special section dealing with licensing and litigation, or they have strengthened such a preexisting group or section.

・Illustration 3-21 Change of corporate organization for the last 5 years



3-1-11 Other change

An increase in intellectual property disputes with foreign companies including U.S. companies is seen as the trend in the last 5 years. Under these circumstances, establishment of systems to cope with such disputes, including dispatching trainees or personnel for residence purposes in the U.S., has been promoted.

In addition to the above, researching ability has been strengthened by promoting the patent research for the purpose of avoiding infringement of other companies' patent rights and by obtaining an American attorney's opinion, before filing applications.

Other changes are as follows:

- Preparation of data base in the company
- Setting up OA system for the business
- Transition from an emphasis on application preparation to an overall patent strategy business .
- Promotion of a technology licensing business in Japan
- Broadening the scope of business regarding copyrights
- Broadening the scope of business regarding licensing law
- Administration of trade secrets
- Administration of trademarks is incorporated into the patent business
- Increase of seeking the opinions of attorneys outside of the company with respect to applications and patent rights.
- Prohibition of transition to a new stage on each stage from research and development to utilization, without first seeking aclearance judgement with respect to patent considerations
- Promotion of application for foreign countries Improvement of how to cope with iterim treatment
- Deeper understanding of the patents in the company
- Increase of applications dealt in the company
- Careful selection of claim for examination in Japan
- Establishment of application administration Group

3-1-12 Matters expected to change in the future

Approximately 7% of the companies pointed out a change the organization of the patent department. Chemical companies were the majority of the above companies.

It should be noted that change of administration system of service mark and trade secret which have come to be protected in Japan and dispatching the personnel of patent department to Europe for residence purposes were pointed out by some companies.

Other issues are as follows:

- Increase of applications filed for foreign countries
- Sharp decrease of the number of claims for examination- Careful selection of applications filed in Japan
- Improvement of quality of applications
- Increase of business for the purpose of effective utilization of rights
- Increase in income by licensing
- Promotion of paperless system and OA system in respect to materials and information of patents
- Greater grasping of patent situation in and out of the company
- Improvement of patent knowledge
- Promotion of cost reduction activities
- Transition to the decentralized administration on a business department basis

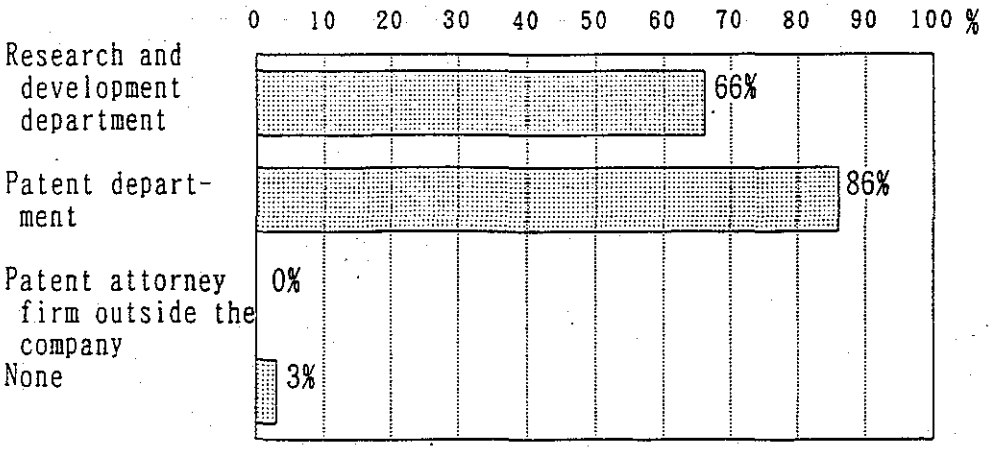
3-2 Division of roles

3-2-1 Decision on patent application strategy

A majority of the companies (35 companies out of 64 companies, 54%) stated that the patent department and research and development department decide the application strategy.

Some compnies states that the patent department itself or research and development department itself has the responsibility; however, it is assumed that the decision is made upon mutual consent between the departments, actually.

Illustration 3-22 Decision on application strategy

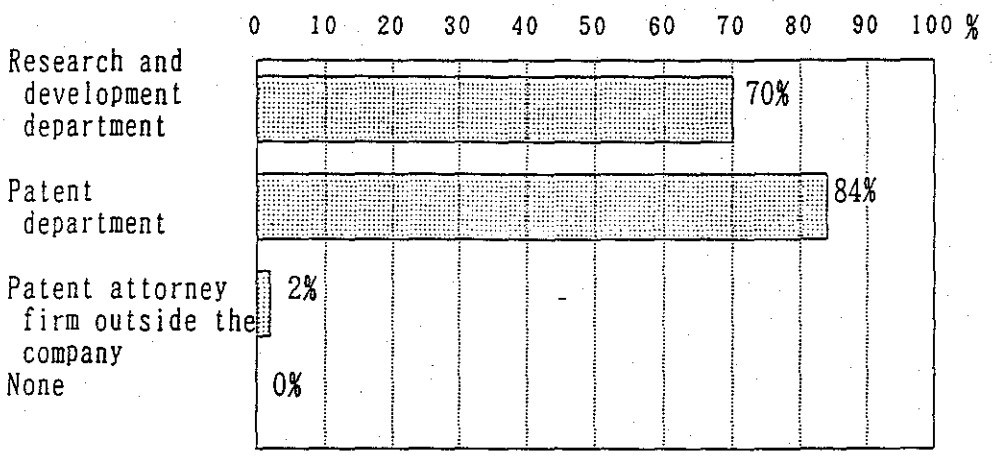


3-2-2 Invention-Harvest activities

A large majority conduct invention development by the patent department and research and development department.

It is noted that there was one response that this task is carried out by a patent attorney firm.

Illustration 3-23 Invention-harvest activities

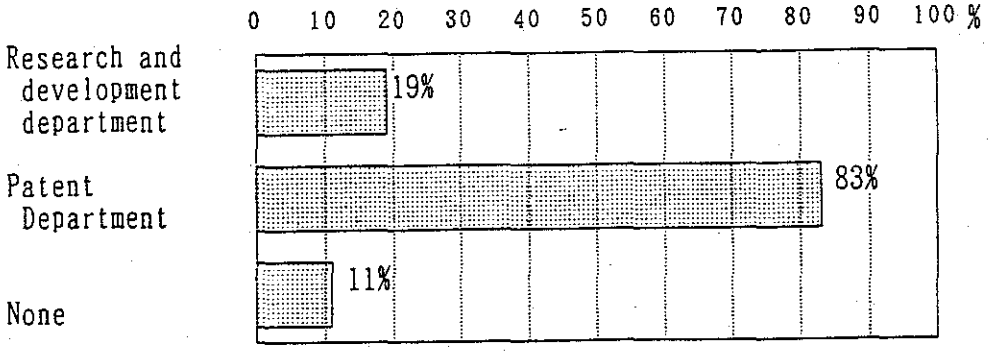


3-2-3 Incentive plans (provision of bonuses, e.g.)

A large majority of the companies stated that incentive plans are instituted and managed largely by the patent department.

In many electric companies, incentive plans are instituted and managed by the research and development department, which is considered to be based on the reasoning that each research and development department manages the budget relating to patent invention work.

Illustration 3-24 Incentive plans

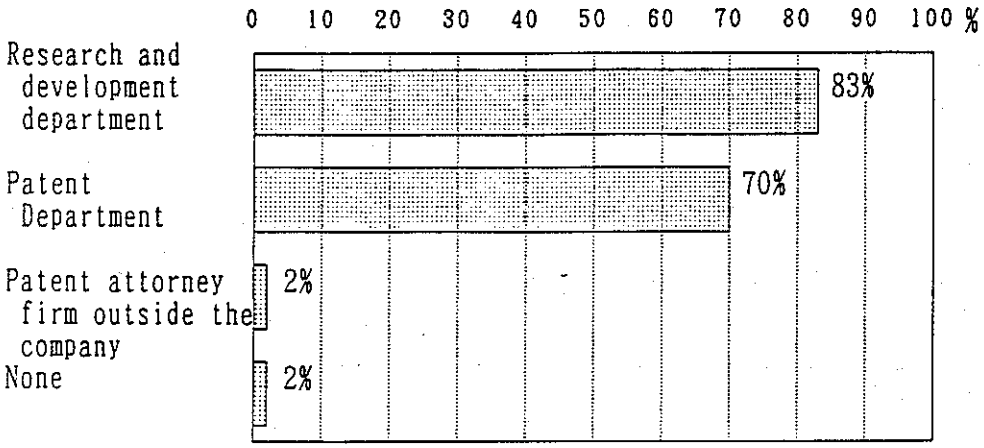


3-2-4 Research of prior technology before application

Almost all companies are conducting application presearches in each of the patent department and research and development department.

Some chemical companies perform the research by the research and development department, and not in the patent department.

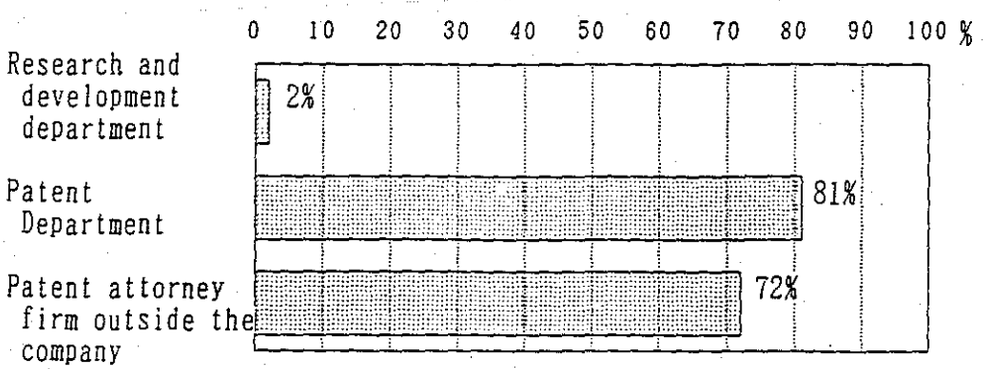
Illustration 3-25 Research of prior technology before application



3-2-5 Application to the Patent Office

In this regard, a large majority of the companies directlyuse the application by the patent department or the application prepared by the patent attorney firm outside the company. In particular, many chemical companies answer that they make directuse of applications prepare by the patent department for filing.

Illustration 3-26 Ratio of prepare applications directly filed in the Patent Office



3-3 Invention-harvest activities

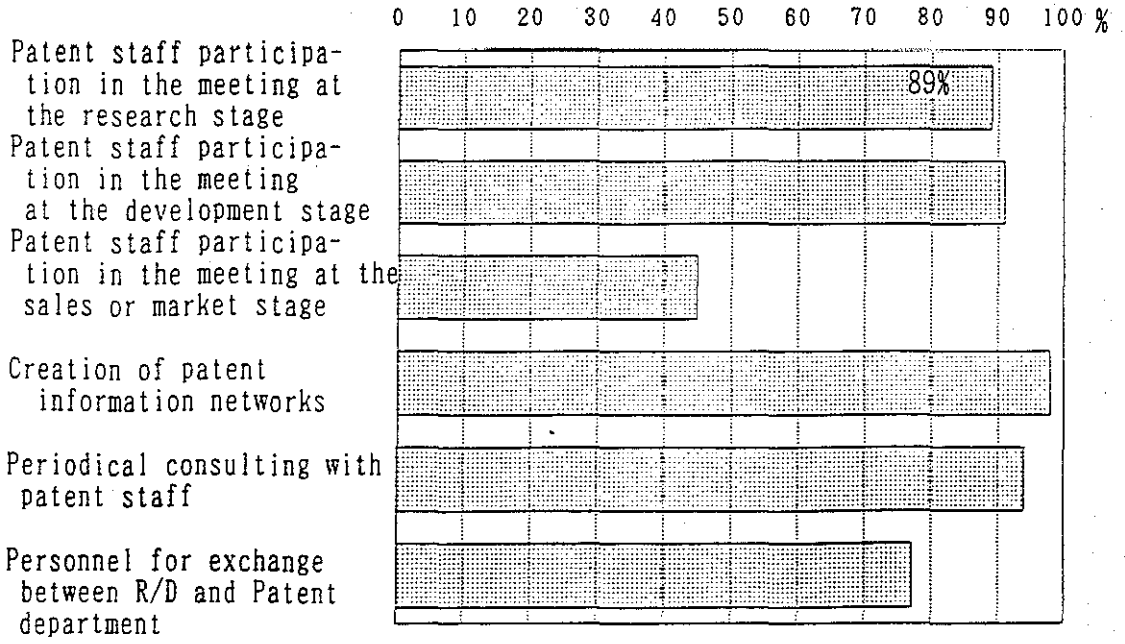
The companies which presently or are planning to include participation in the meeting on the research and devleopment stage of a technology by personnel of the patent department as part of their invention development activities occupy approximately 90% in the total.

On the other hand, 45% of the companies having patent department personnel participating or going to participate in the meeting at the sales or market stage of the product. The ratio of the chemical companies is higher in this regard than a the ratio of machine or electric companies among these companies.

As the method of invention harvest , more than 90% of the total number of companies are forming a patent information network and periodic consultion arrangements with the patent staff.

The companies which are appointing a patent liaison person or a contact person for the research and development department as the personnel exchange between the research and development department and the patent department occupy 77% among the total companies. (Illustration 3-27)

Illustration 3-27 Matters implemented or to be implemented in invention harvest activities



3-3-1 Patent Staff participation in the meeting at the research development stage

Approximately 90% of the companies state that the patent staff participate or going to participate in the meeting at the research and development stage.

Among these, approximately 50% have already been conducting these activities for at least 10 years. 14 companies have the plan to conduct these activities in the future and 17 companies have conducted these activities in the last 5 years, which indicates that this trend is increasing.

Approximately 70% of the companies state that the purpose of these activities is to gather information and to discover and extract the invention, and approximately 60% of the companies point out the use for improvement of the integrity and quality of the patent application and the avoidance of infringement of other companies' rights as the expected effects.

Illustration 3-28 Patent staff participation in meeting at the research stage

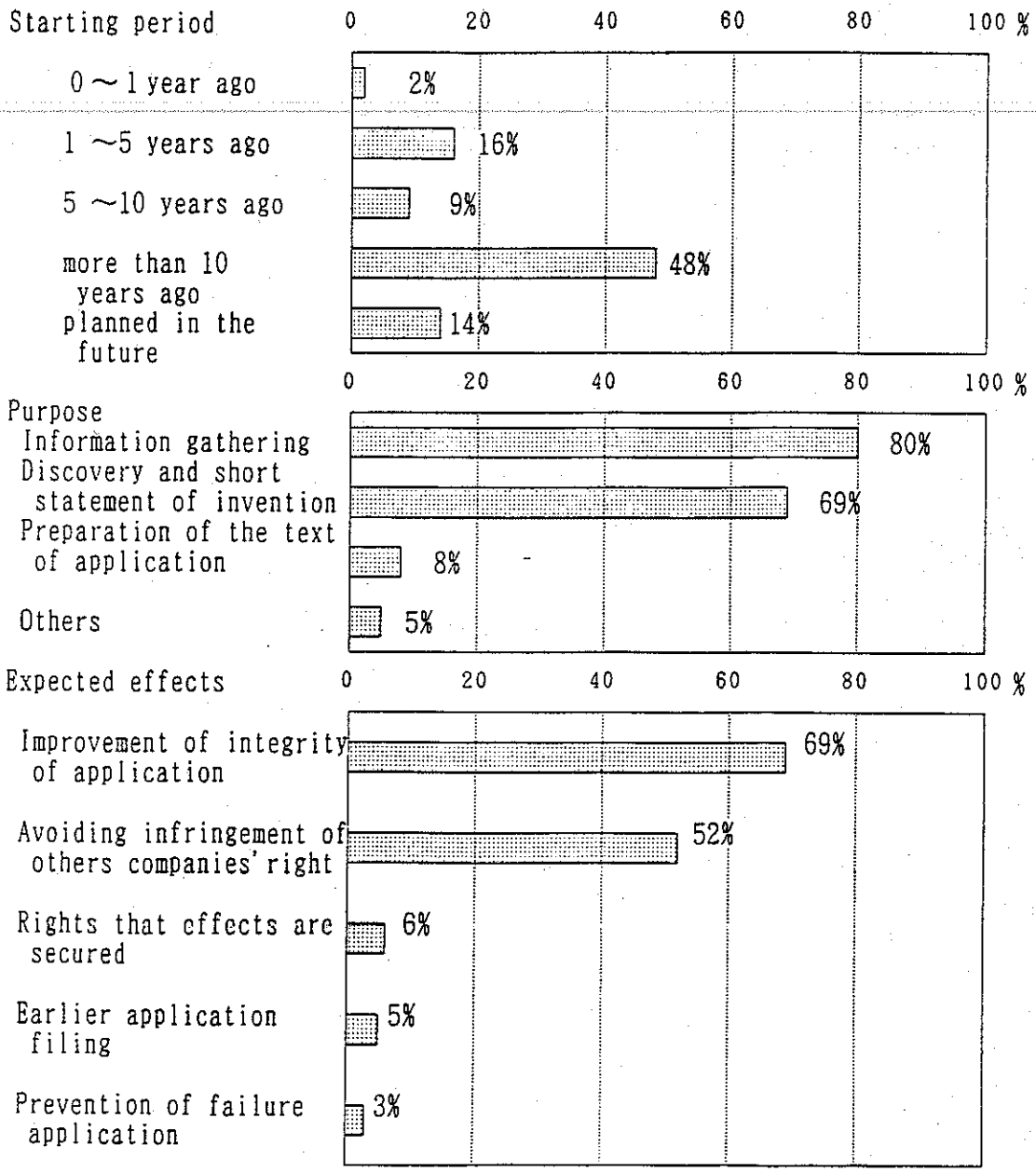
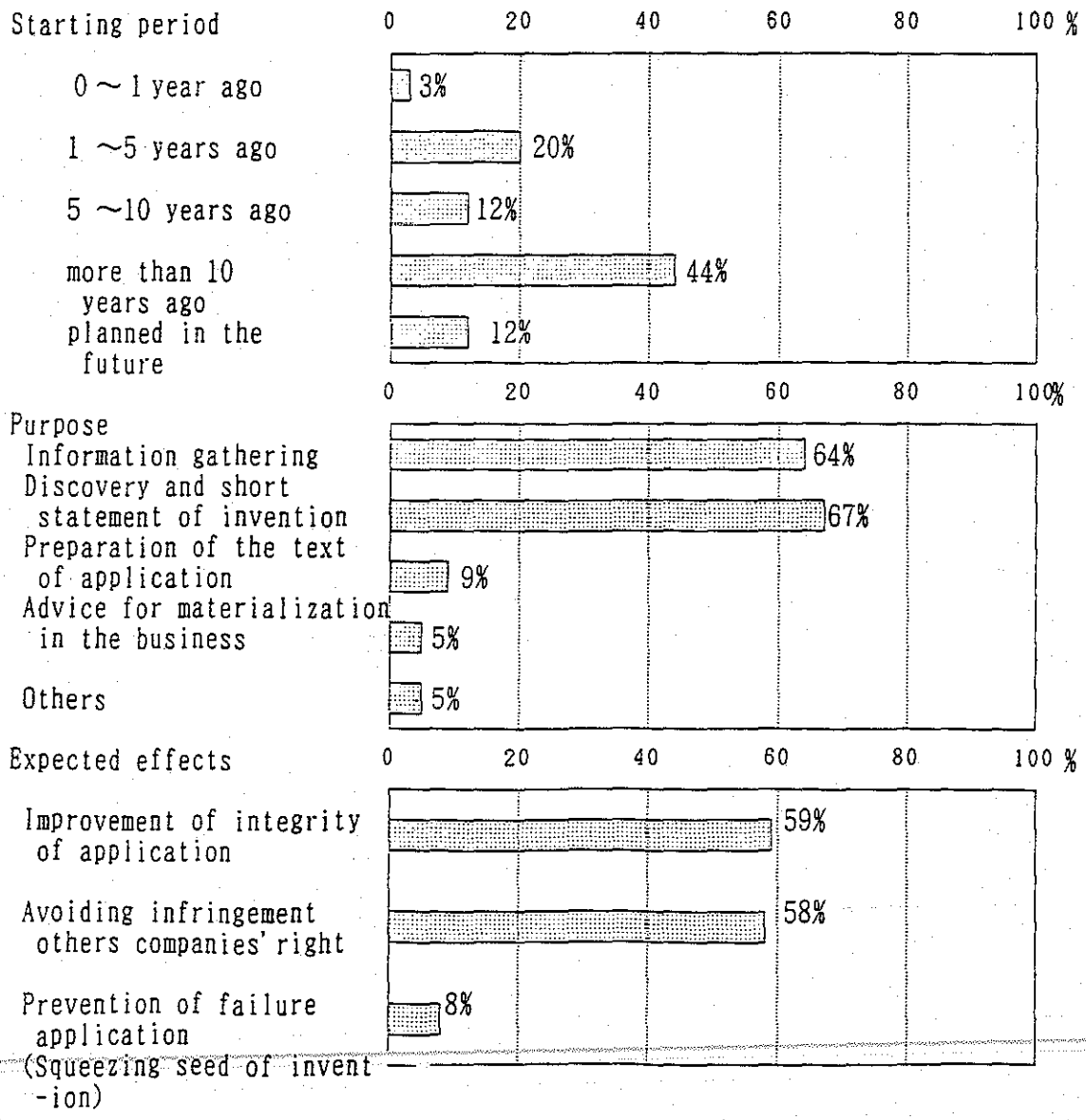


Illustration 3-29 Participation in the meeting at the development stage



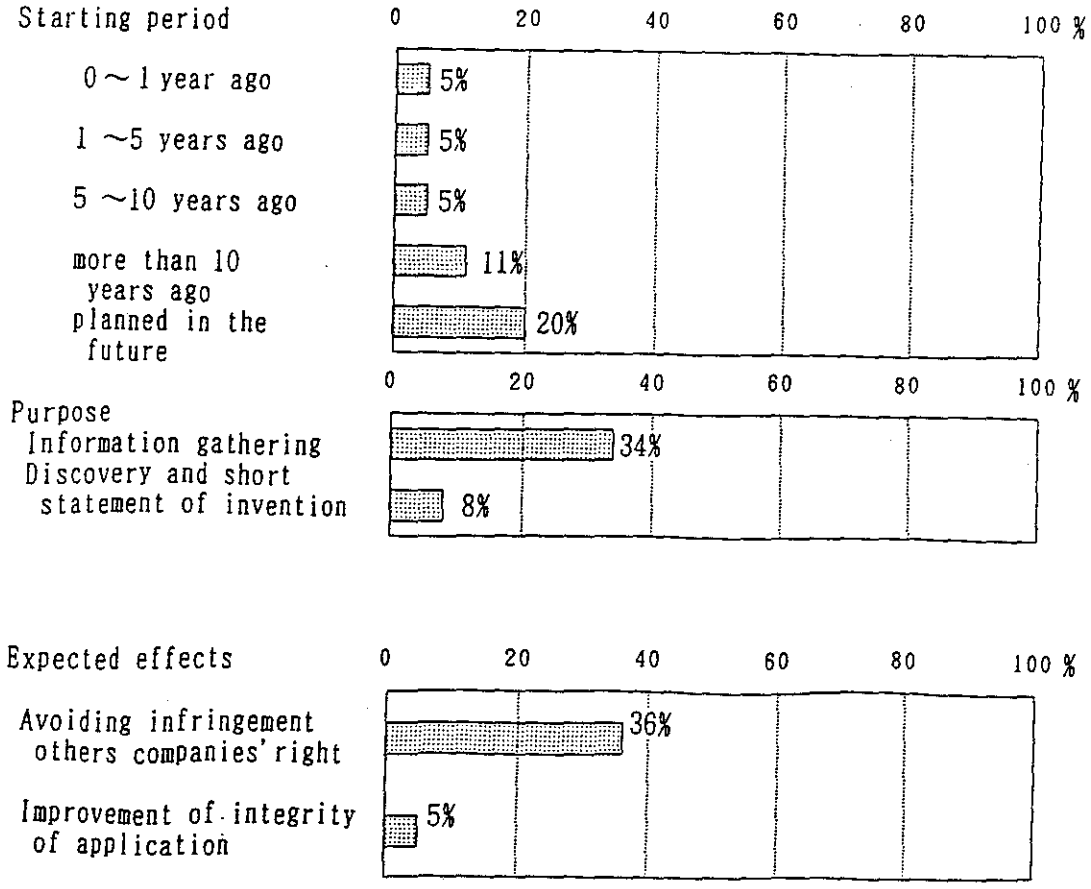
3-3-2 Patent staff participation in meetings at the sales and market stage

45% of the companies are having patent staff participate or intend to parcipate in meetings at the sales and market stage.

Approximately another 45% of the companies have the intention of conducting the above activity in the future, though they have not conducted it yet. This suggests that the tendency of adopting such activity aimed at building greater interaction between patent departments and business operations.

This growing interaction between corporate divisions on patent affairs is also apparent from the fact that approximately 70% of the companies indicate that the reason for the joint attendances is largely to gather and information, and approximately 80% state that the expected effects are avoidance of infringement of other companies' rights.

Illustration 3-30 Patent staff participation in the meeting at the sales and market stage



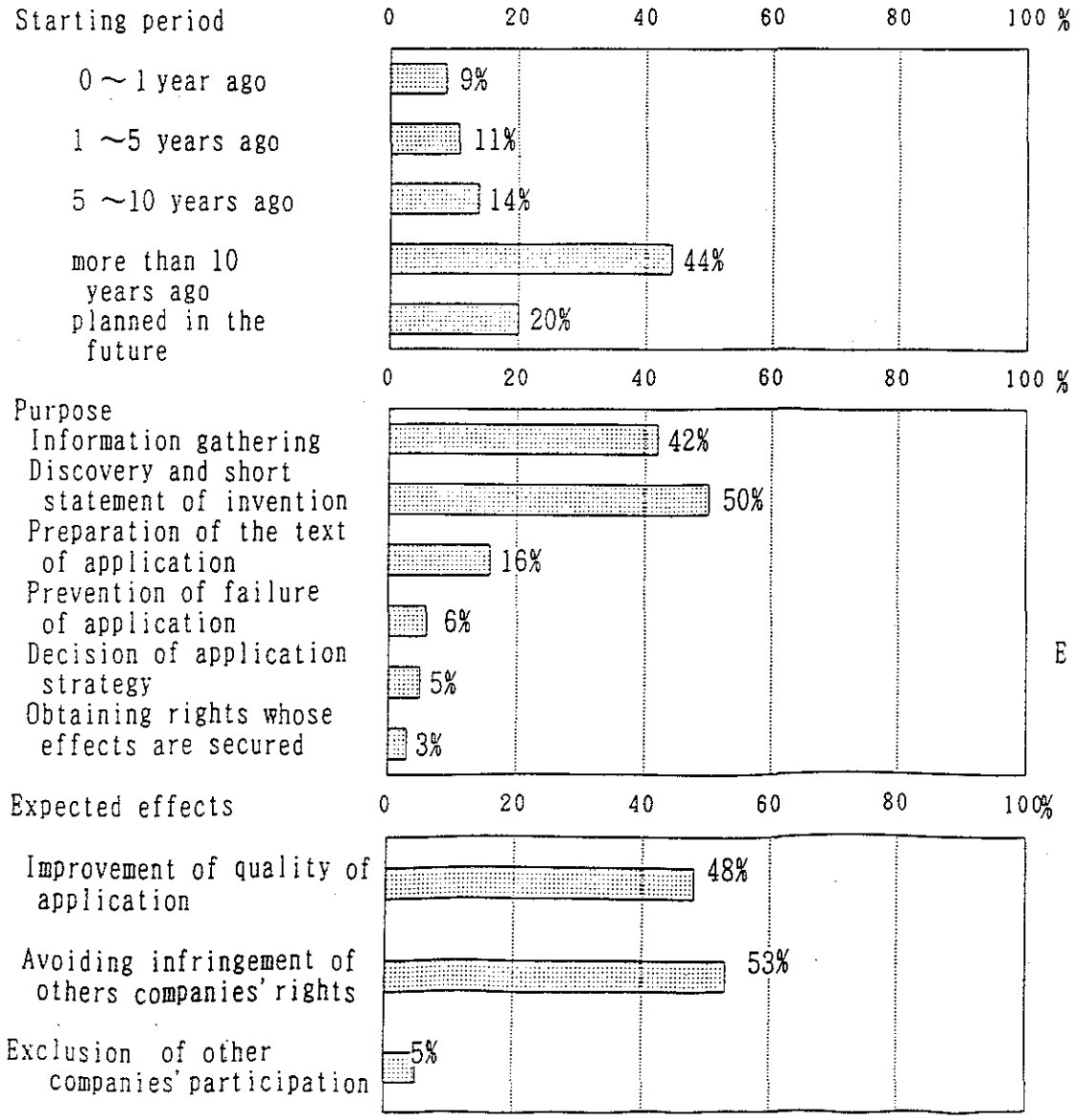
3-3-3 Creation of patent network

The companies which are conducting or are going to form patent networks as the concrete method of invention development occupy 98% of the total companies.

Approximately a little under 50% of the above companies have used this practice for more than 10 years. Approximately 10% have the intention to adopt such method in the future.

Approximately 50% of the respondents stated information gathering , invention-harvest and invention developmentn as the reason for establishing such patent networks. Improvement of integrity of the application and avoiding infringement of other companies' rights were given as reasons by approximately 50% as the expected effects.

Illustration 3-31 Creation of patent network



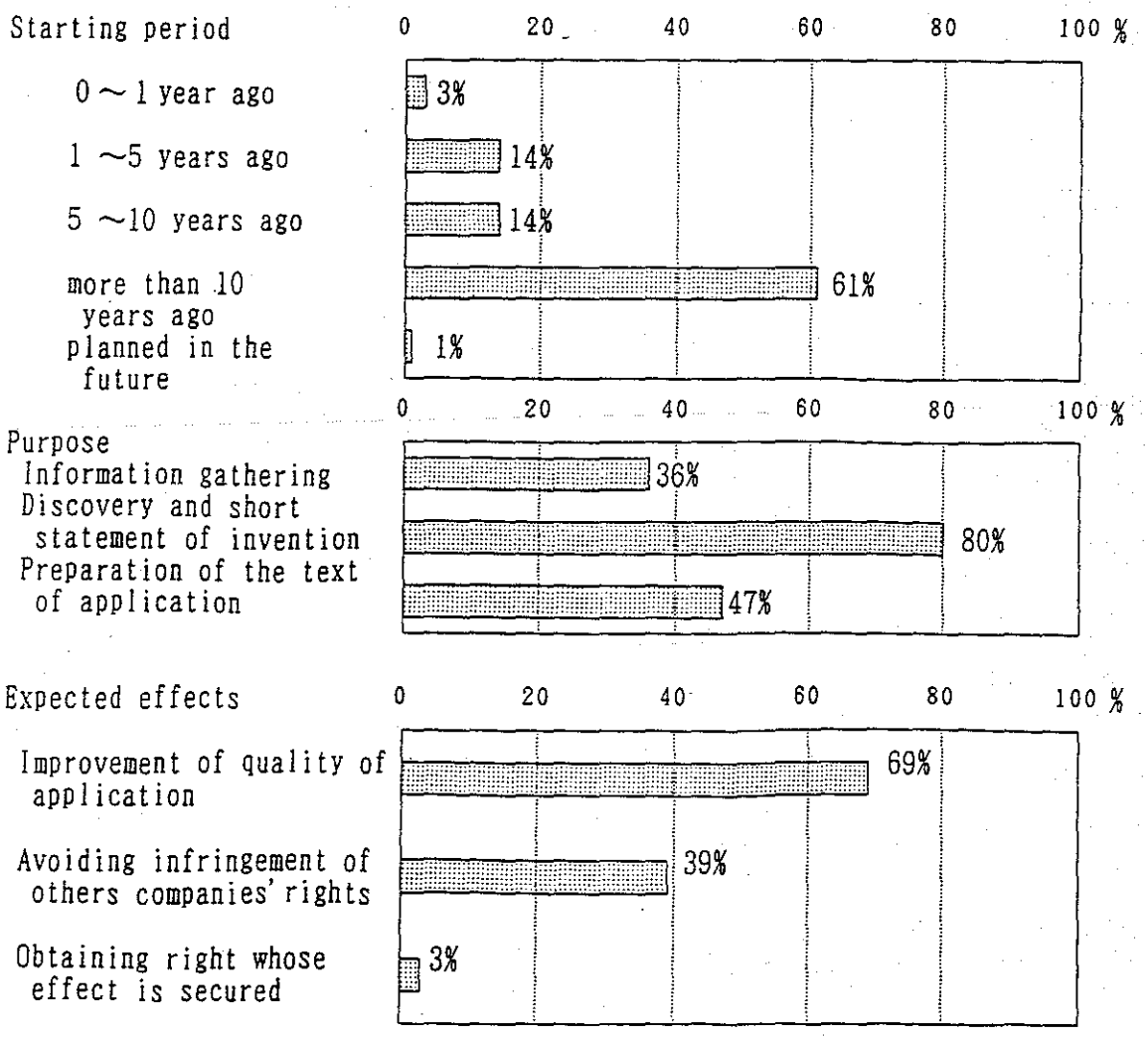
3-3-4 Patent consulting

94% of the companies are conducting or are going to conduct patent staff by other departments periodical consulting with as one of the concrete method of invention harvest.

The companies which have used this method for more than 5 years occupy 75% of the above. It is understood from the above that this method has been fixed in each company for a relatively extended period at time.

85% point out the discovery and short statement of invention as the purpose of such method. Approximately 70% indicate the improvement of quality of application as the expected effect.

Illustration 3-32 Patent staff consulting



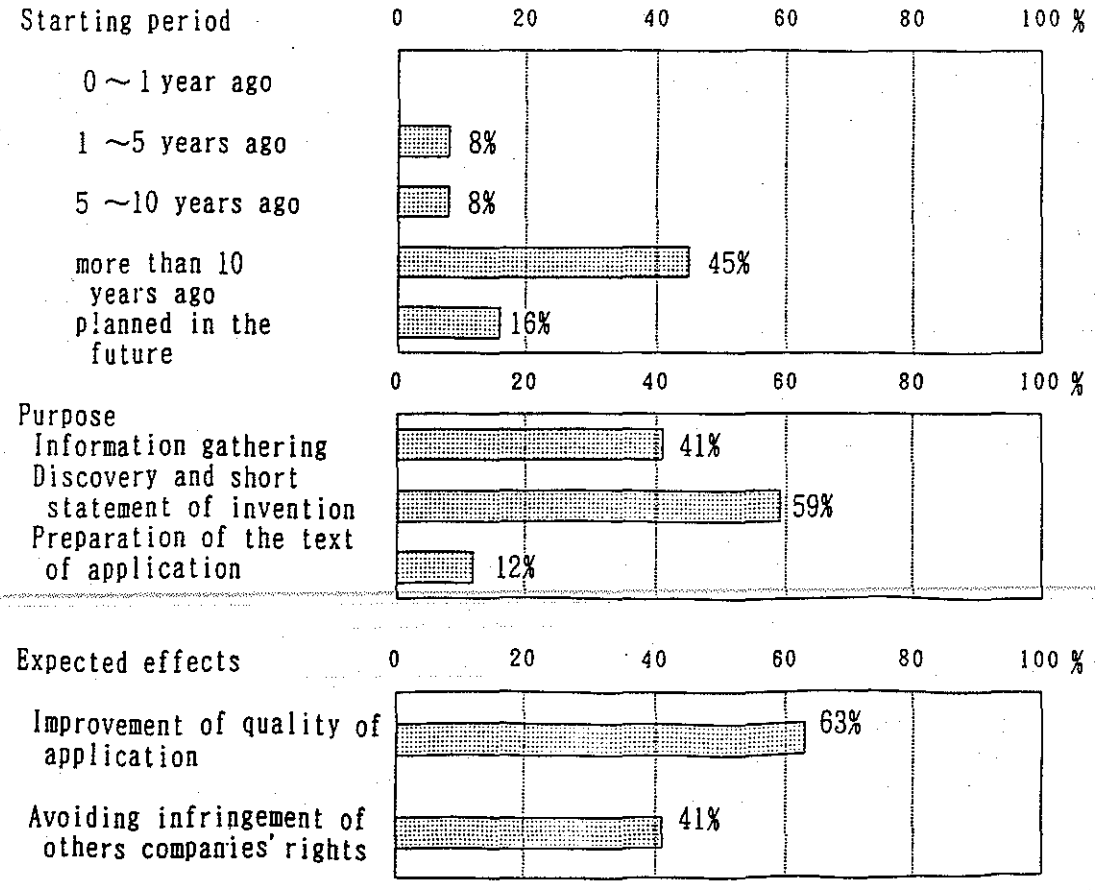
3-3-5 Personnel exchange between research and development department and patent department

The companies which are appointing a patent liaison person or contact person for the research and development department, or are going to appoint such a contact occupy 77% of the total respondents.

Approximately 60% of the above affirmatively responding companies have had this personnel in place for more than 10 years and 16% have plans to create such a position. This trend is considered to be likely to increase in the future.

The companies stating the information gathering was its purpose are approximately 50% of the above. Approximately 80% indicate the discovery and short statement of invention as purpose. Approximately 80% point out the improvement of application integrity as the purpose and approximately 50% the purpose of avoiding infringement of other companies' rights, as the expected effects.

Illustration 3-33 Personnel exchange between the research and development department and patent department



3-3-6 Incentives for application

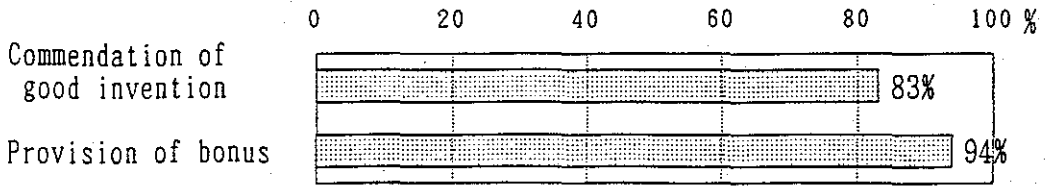
- Commendation of good invention -

Approximately 80% of the companies are presently providing or intend to provide a commendation of good invention for the purpose of motivating applications.

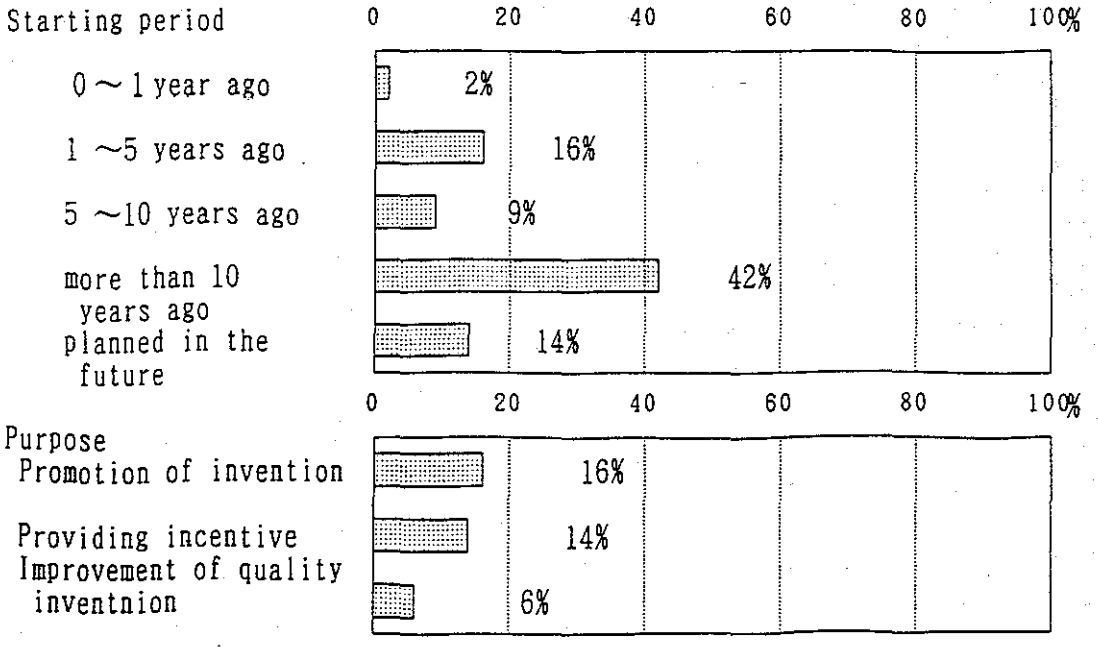
Approximately 50% of the above have been implementing this practice for more than 10 years. Approximately 20% started this activity 1-5 years ago. Approximately a little under 20% have plans to implement it in the future.

Among the companies having started this practice 1-5 years ago, the percentage of chemical companies is quite higher than that of machine and electrical companies.

Illustration 3-34 Activities being implemented or planned to be implemented for the purpose of promotion of applications



—Commendation of good invention—

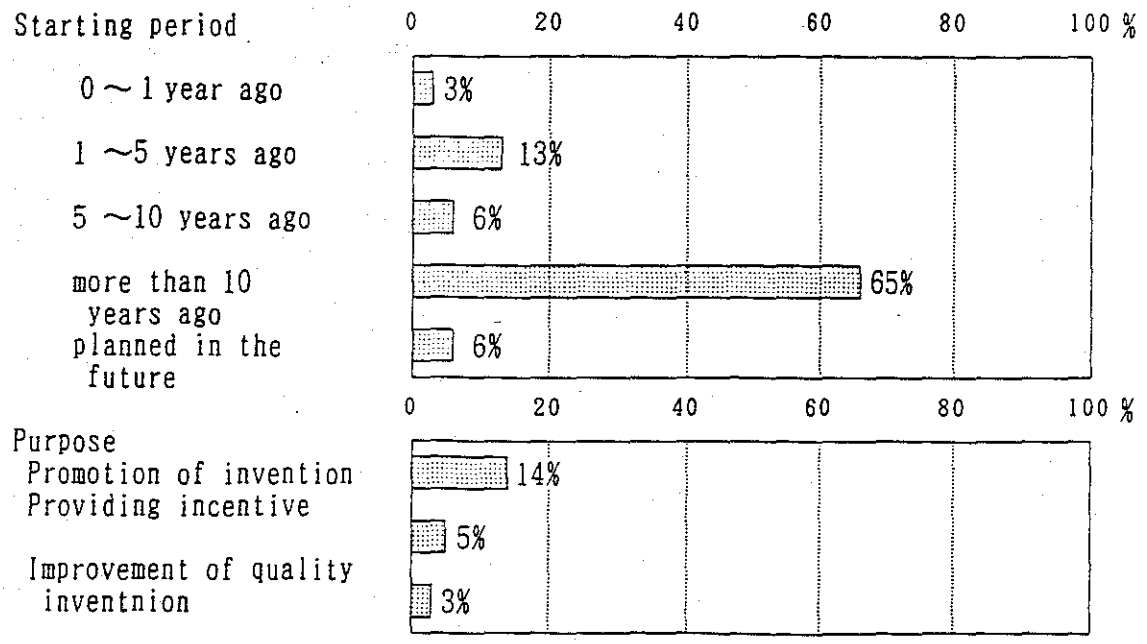


- Provision of bonus -

Approximately 90% of the companies are implementing or are going to implement the provision of bonus, other than the compensation specified in Article 35 of the Japanese patent law, for the purpose of promotion of invention.

The companies which have implemented this incentive activity for more than 10 years occupy approximately 70% of the above.

Illustration 3-35 Provision of bonus



3-4 Patent education

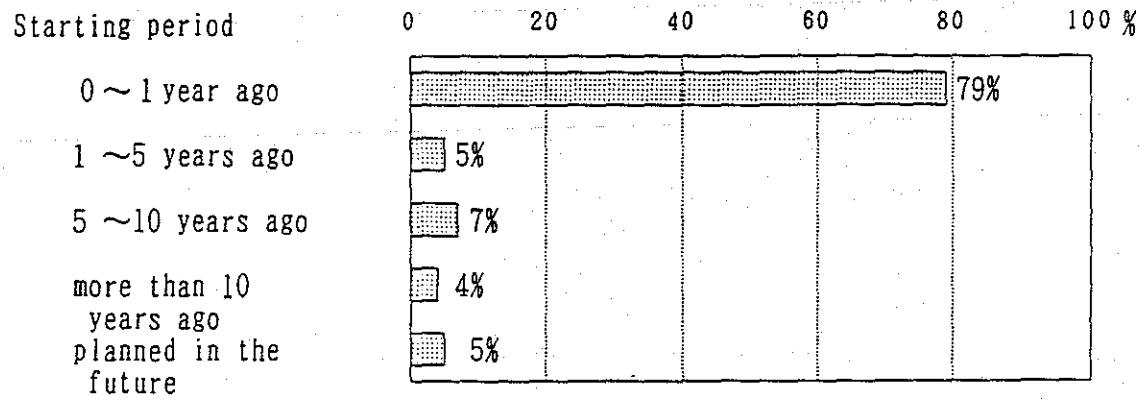
Japanese companies have good understanding of the necessity and importance of education of employees, and are devoting their energies to education regarding patents as well. As the method of such education, both training in the company or outside the company is implemented broadly.

3-4-1 System of training outside the company

Lectures of good quality are offered by outside groups such as the Japan Patent Association, International Trade and Industry Research Institute, AIPPI, Japan Company Study Institute and other groups. Approximately more than 80% of the member companies have utilized them for more than 10 years.

Many companies are creating the system to cope with the possible litigation by dispatching a trainee to foreign countries in order to have the individual learn the patent system in that country and by deepening the association with the local affiliated attorneys.

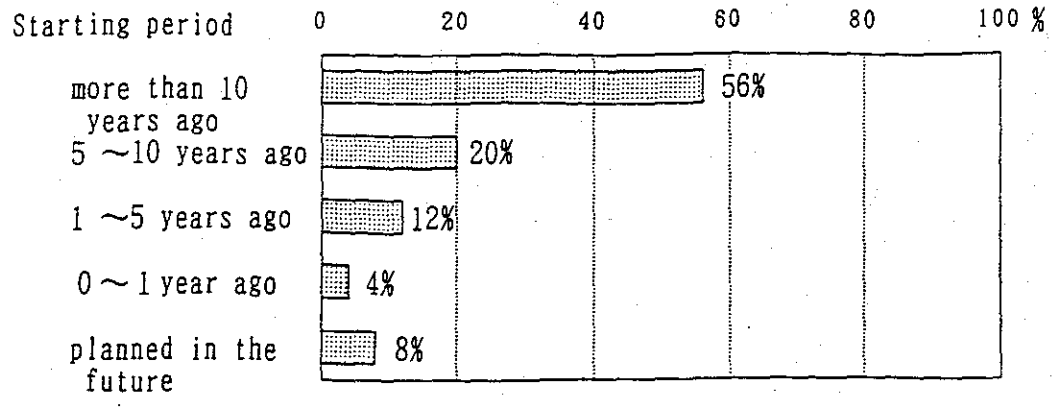
Illustration 3-36 Participation in the training held by the institute outside the company



3-4-2 Systems of training in the company

More than a half of the companies have been implementing the training in the company on a section and rank basis for more than 10 years. More than 75% are implementing the training in the company if the companies which have implemented it for more than 5 years are considered also. This tendency suggests that the understanding of the necessity of patent education in the company is being enlarged.

Illustration 3-37 Implementation of training on a section and rank basis

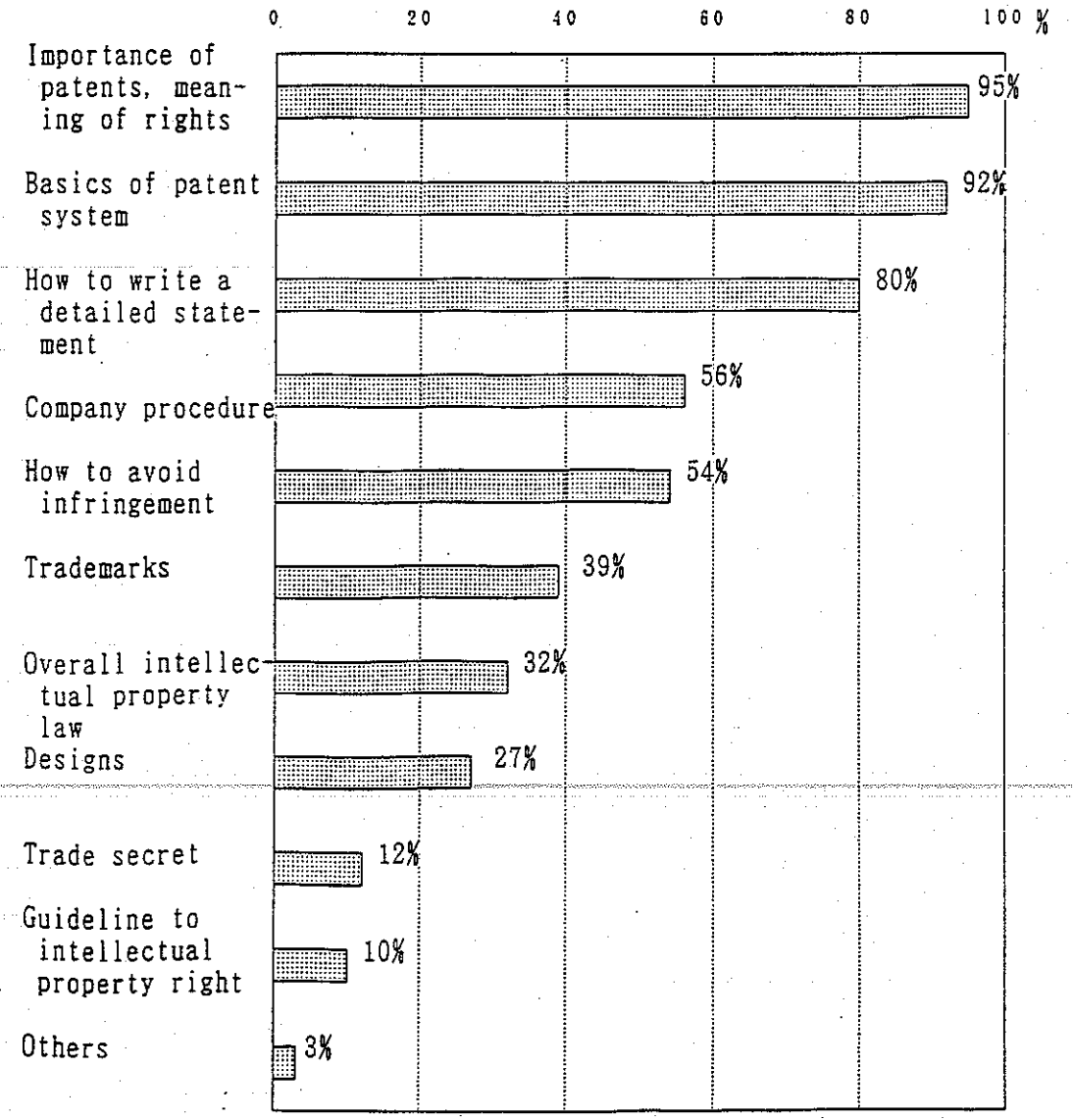


The kind of training centers around the whole patent business. Company procedure, how to avoid infringement, trademark, design and trade secrets are covered.

Patent training is conducted in respect of the importance of the patent, the meaning or right, basics of the patent system and how to write a detailed statement or specification. Almost all companies are instructing on how to write a detailed statement the research and development personnel.

In Japan, interest is growing on the topic of trade secrets these days. Training on the area of trade secrets is expected to increase in the future.

Illustration 3-38 Training which patent department is implementing on a sectional basis



Personnel to be trained centers around the research and development staff, and almost all companies provide training to the research and development staff. It should be noted that approximately 22% are also providing it to the marketing staff and approximately 8% to the plant workers. (Illustration 3-39)

The person in charge (not manager level), of course, is the personnel to be trained as a general rule. However, it is noticeable that many companies are providing the training to the personnel in the level of middle management or higher. (Illustration 3-40)

Illustration 3-39 General personnel to be tranined on a sectional basis by the patent department (status)

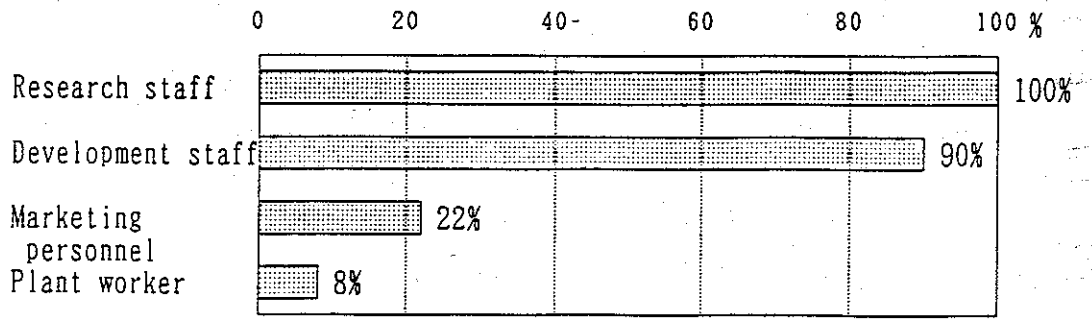
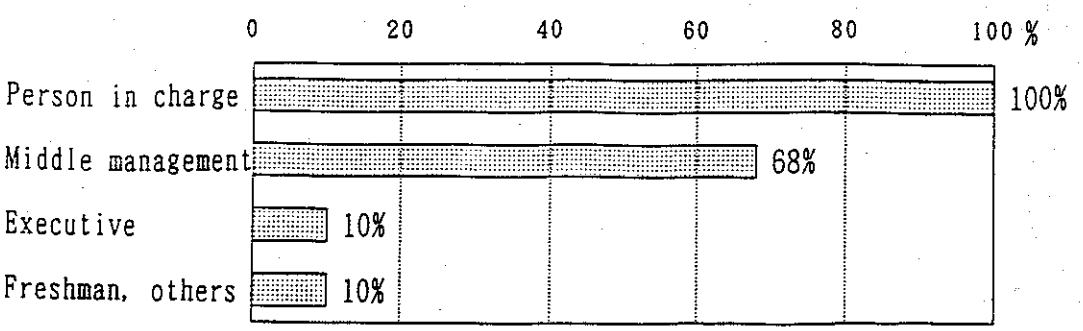


Illustration 3-40 Specific personnel to be trained on a sectional basis by the patent deparment (status)



3-4-3 Other patent educational activities

Many companies are implementing the preparation of a manual, publication of a company report, reporting to research and development management in addition to training in and outside of the company, as a part of the educational activities with respect to patents.

(1) Preparation of patent manual

Almost all companies have implemented this practice for more than 10 years. Approximately 88% are impelmenting it at present.. The manual is distributed to various sections, centering around research and development, including marketing and management sections. (Illustration 3-41)

The manual to be distributed to the research and development department is considered to contain the information necessary for the research and development staff, including importance of the patent, basics of the patent system and how to write the text of an application. As to the manual to be maintained by the patent department, company policies and company procedure for patent administration are considered for inclusion in the written document. Some chemical companies are distributing the patent manual to marketing personnel.

This is attributed to the fact that many of the marketing personnel in chemical companies have specialized knowledge in technology and they have many opportunities to discuss the technology (sometimes patent) with the customer. (Illustration 3-42)

Illustration 3-41 Preparation of manual describing company guidelines to patent administration and its procedure for intellectual property (personnel to be distributed manual)

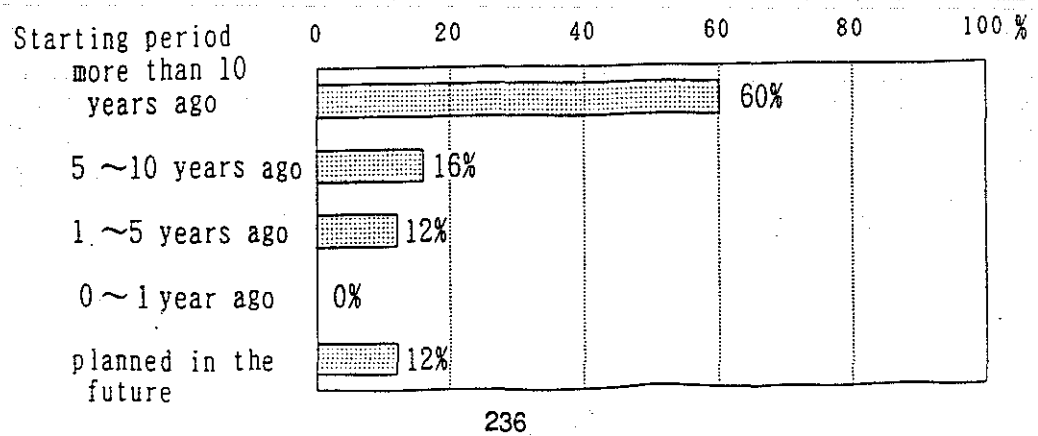
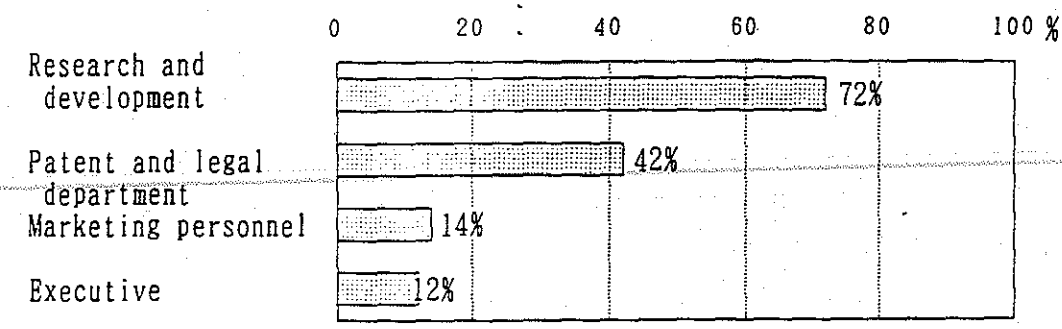


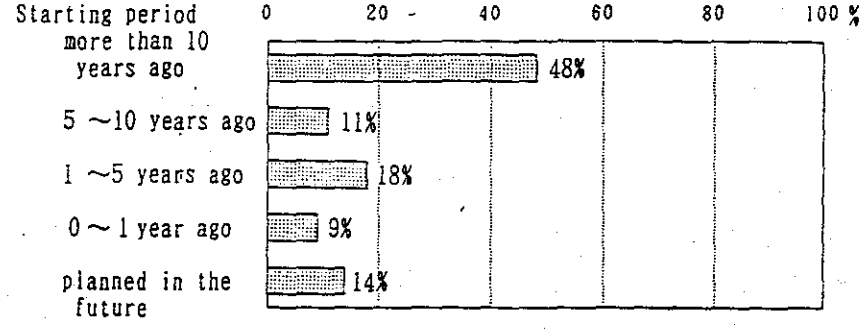
Illustration 3-42 Preparation of manual describing quidelines to patent administration and company procedure on intellectual property (personnel to be distributed manual)



(2) Issuance of company report by the patent department

Approximately half of the companies have issued company reports by the patent department for more than 10 years. At present, approximately 85% are implementing this practice.

Illustration 3-43 Issuance of company report



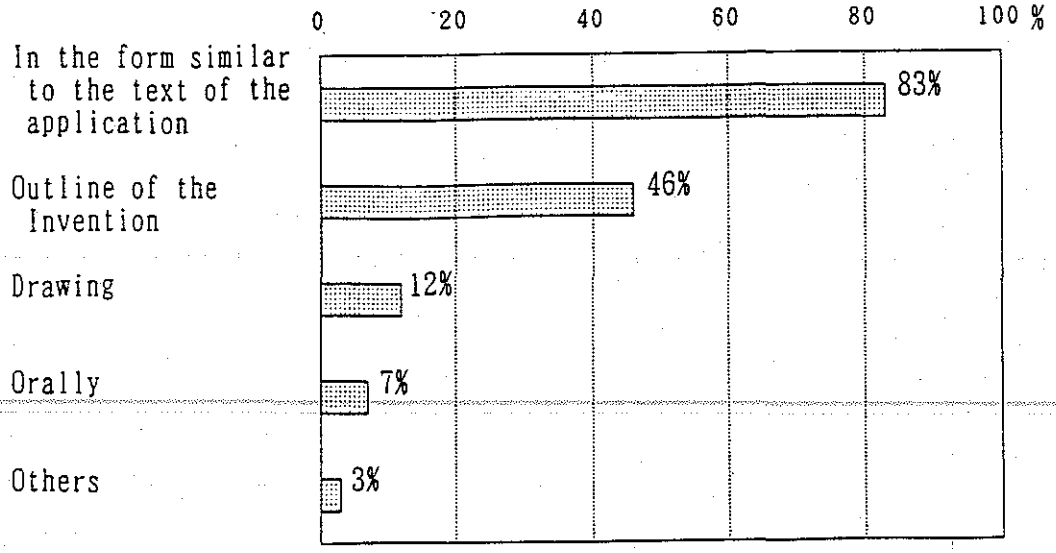
(3) Reporting to research and development management

Reporting to research and development management has been practiced for many years, and at present, this practice is implemented by approximately 90% of the companies. Reporting to the management seems to be quite effective in improvement of patent educational activities in the company.

3-5-1 Disclosure of invention by inventor

There are many cases in Japanese companies that the inventor discloses his invention to the patent department in the form similar to the text of the application ultimately submitted to the Patent Office. The result of questionnaire reveals that in approximately 83% of the companies the inventor prepares the documents in the form similar to the text form of application and submits them to the patent department. This practice relates to the facts mentioned above that the training regarding how to write the text of an application is provided to the inventor (research and development personnel) by the education system in the company. Of course, there are the cases that the invention is disclosed by stating its outline alone in writing or in oral, depending on the situation, and in some cases, is disclosed only by drawing to the patent department.

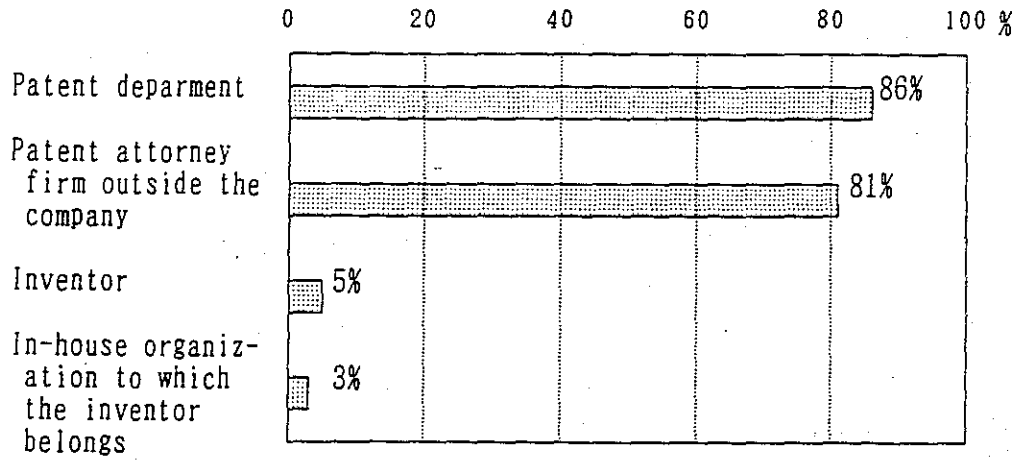
Illustration 3-45 Application procedure (method of disclosure of disclosure of invention by the inventor)



3-5-2 Preparation of the text of application

Completion of the text of application (patent application) is made by the patent department or by a patent attorney firm outside the company. A high frequency of utilizing a patent attorney outside the company, which is not necessarily indicated by the number below is nonetheless considered to be a feature of Japanese companies.

Illustration 3-46 Application procedure (person who completes the text of application)



4. Conclusion

1) Intellectual property rights have come to be given great weight in relation to other corporate activities in the "pro-patent" era.

The owner of intellectual property rights is more favourably disposed to utilize the right as a weapon to prevent third parties from finding their way into the competing field or as a weapon to collect high amounts in license fees from third parties.

The export value amount in technical trade from the U.S. has soared to 10.7 billion dollars in 1987 from 5.2 billion dollars in 1982. The technical trade value amount from the five advanced countries (total amount of export and import) has risen to approximately two times as much as that 5 years ago (Apendix 1).In accordance with the monthly report of statistics issued by the Management and Coordination Agency, the deficit in value in import versus export of intellectual property rights in Japan was eliminated for the first time in 1989 (Apendix 2).

Thus, the rethinking on the dignity to be given intellectual property rights is a worldwide trend.

2) Scope of business of intellectual property rights has been expanded to additionally cover copyrights and trade secrets in addition to patent, design, trademark, and utility model , and such bisiness has come to be administered by the patent department. This trend is supported by the symbolic fact that many companies have increased the responsibilities and changed the name of the "Patent" department to the "Intellectual Property" department or the like.

3) With the broadening of scope of intellectual property rights mentioned above, intellectual property rights have become an important factor to be considered when asseessing spending costs a time, and labour among the various corporate activities.

That is, companies have come to make extensive research in advance on the intellectual property rights owned by third parties and make careful deliberated judgements (e.g., seeking opinions of attorneys) on it in order to avoid careless infringement and to prevent company management from suffering unexpected damages. Also, in the aspects of utilization of intellectual properties owned by the company, exposure of infringement of other companies' intellectual property rights and granting of licenses to use the company's rights to third parties have come to be active corporate areas.

4) As to the obtaining of intellectual property rights which can be more effectively exploited by the company, each company is utilizing a dominant priority application approach and multi claiming applications which are the result of recent amendements of the Japanese judicial system and substantiating the contents of invention in the application.

5) Rather active educational activities regarding the intellectual property rights (e.g. education, training) has been provided for the research and development staff other than the patent department for many years for the purpose of obtaining useful intellectual property rights and avoidance of infringement of third parties' intellectual property rights as well, with respect to the campaign of enlightment of intellectual property rights.

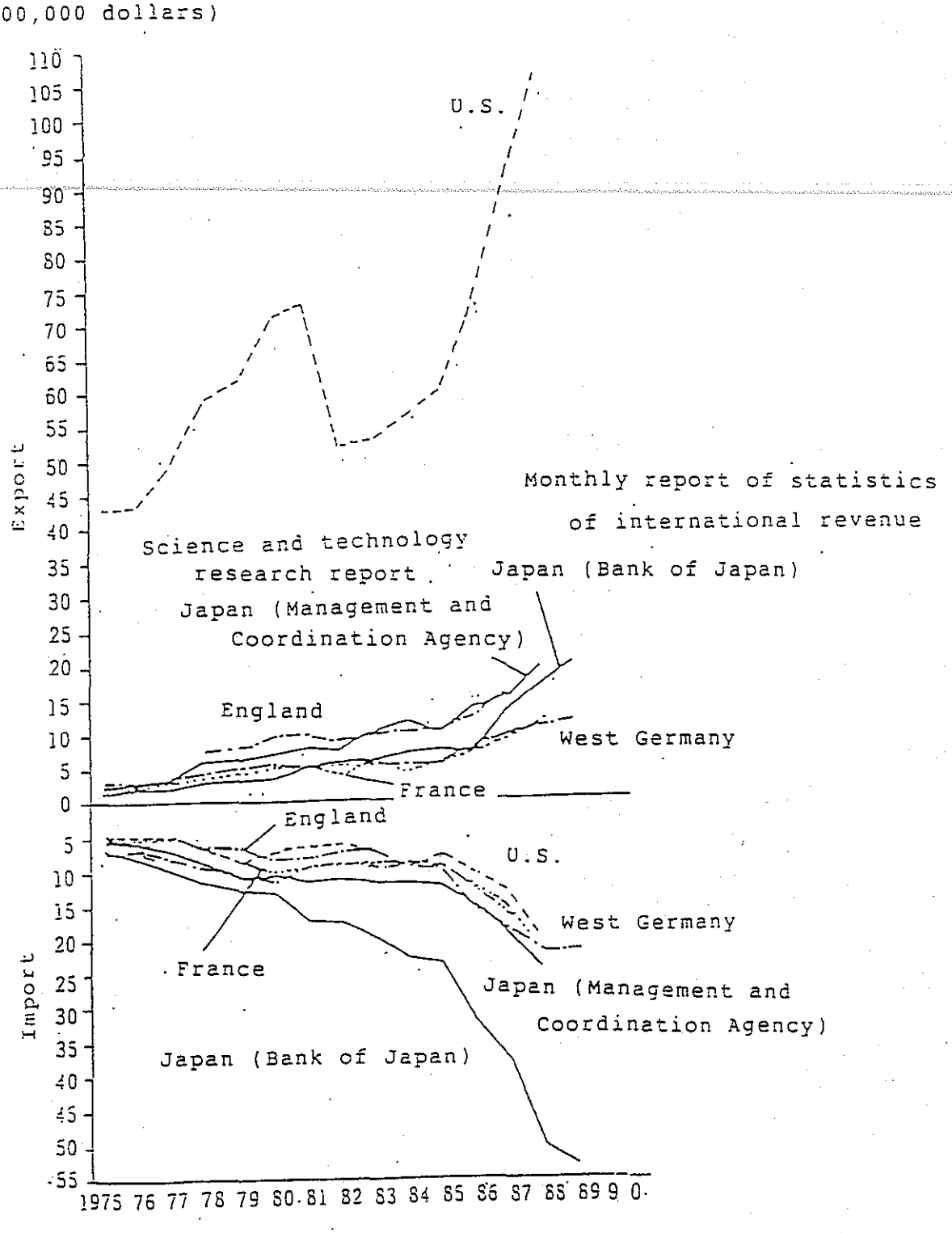
6) Close cooperation between the research and development department and patent department has been implemented, including the participation of patent department staff at meetings at the planning, research, development and marketing stages, in respect of application strategy decisions and invention development.

Attachment

1.Data 1: Value of technical trade of 5 advanced countries (ibid White paper on science and technology, 1990, edited by Science and Technology Agency)

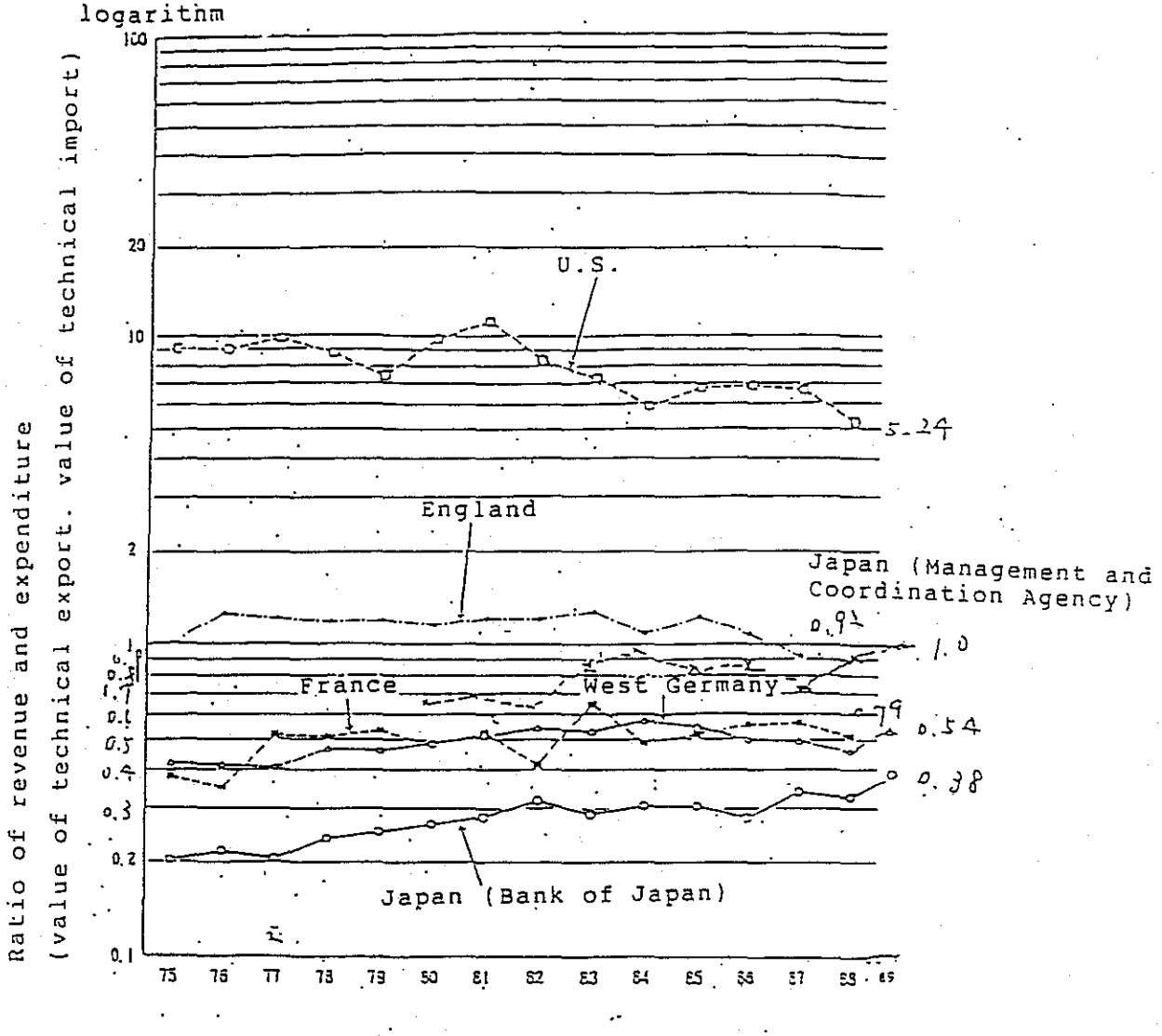
2.Data 2: Value of import and export of intellectual aproperty rights.

Data 1 Change of value of technical trade of advanced 5 countries



(ibid) White paper on science and technology, 1990 edited by Science and Technology Agency)

Data 2 Change of the rate of revenue and expenditure in respect of technical trade such as patent



(remark) Value of each country is based on the following:

Japan: Monthly report of statistics of international revenue and expenditure, Bank of Japan

U.S.: Survey of Current Business, Department of CommerceEngland: Business Monitor, MA4, Oversea Transations, Ministry of Trade and Industry

France: Statistique & Etudes Financieres, Ministry of Economic

West Germany: Monthly Report of the Deutche Bundesbank, Federal Bank

(ibid White paper on science and technology, 1990 edited by Science and Technology Agency)

PIPA Database Coversheet

(1) Title : United States Service Marks

(2) Date : August 2, 1991

(3) Source :
1) Source : PIPA
2) Group : United States
3) Committee : No. 1

(4) Author : Brian E. Banner

(5) Keywords: Service Marks, Trademarks, Prohibited Marks, Service Mark Guidelines.

(6) Statutory Provision(s) : 1905 Trademark Act, 1938 Trademark Act, 1946 Trademark Act, Lanham Act, Section 2 of the Lanham Act.

(7) Abstract : The paper surveys the origin of the service mark in United States law. Limitations on what can be protected as a service mark under United States Law are described, and illustrative specimens of service marks in each of the eight classes for such marks under the International Classification system also are provided.

UNITED STATES SERVICE MARKS

by Brian E. Banner

Free people love choices. Choice is defined as the power of choosing from a sufficient number of alternatives. It is the ability to decide for yourself how and when to do something, what to use, how much to pay and what to avoid. As a free market economy matures, more goods and services become available and the number of choices' people make goes up. The function of a service mark is to prevent confusion in the marketplace, thereby, insuring the right of both free and intelligent choice.

A service mark identifies the source of one service from a plurality of competitive services. It protects the goodwill of the service mark owner and protects the public from fraud and deceit as to the source of the services. Service mark rights are rooted in the law that protects trademark rights. Protection for the source of one's products has of course, existed since antiquity. The recognition of trademark law as a protection for the public from fraud and deceit by unscrupulous sellers of bogus goods serves as valid a social function today as it did in the past.

In the United States, service mark rights were recognized at common law and were enforceable in state and federal courts under the common law of unfair competition. However, judgements varied widely from state to state and enforcement was expensive. In order to correct these, and other marketing problems, the idea of a federal service mark registration came to the minds of many businessmen. In the 1930's, the issue of a federal service mark

registration law, similar to the trademark law then in effect, was widely discussed. The draft service mark law was grafted into and made part of an extensive revision of the U.S. trademark laws contained in the 1905 and 1938 Trademark Acts. The draft service mark law was sponsored by Representative Fritz Lanham. His bill, which eventually became known as the Lanham Trademark Act, was delayed for 17 years from passage by other political considerations and World War II. His bill was eventually passed by the Congress and signed on July 5, 1946; it took effective one year later.

The Lanham Act defined the term "service mark" as meaning "A mark used in the sale or advertising of services to identify the services of one person and distinguish them from the services of others and includes without limitation the marks, names, symbols, titles, designations, slogans, character names, and distinctive figures of radio or other advertising used in commerce." (Section 45 of the Trademark Act of 1946). Registration and protection of service marks was put on a par with the rights afforded to registered trademarks. Many kinds of service marks may be registered. The list includes, words and phrases, numerals and letters, pictures and symbols, colors, slogans and even sounds. However, certain marks are prohibited from being registered in the U.S. Howevèr under Section 2 of the Lanham Act, a mark will not be refused registration on the principal register on account of its nature unless it:

(a) Consists of or comprises immoral, deceptive or scandalous, matter; or matter which may disparage or falsely suggest a

connection with persons, living or dead, institutions, beliefs, or national symbols, or bring them into contempt, or disrepute.

(b) Consists of or comprises the flag or coat of arms or other insignia of the United States, or of any State or municipality, or of any foreign nation, or any simulation thereof.

(c) Consists of or comprises a name, portrait, or signature identifying a particular living individual except by his written consent, or the name, signature, or portrait of a deceased President of the United States during the life of his widow, if any, except by the written consent of the widow.

(d) Consists of or comprises a mark; which so resembles a mark registered in the Patent and Trademark Office, or a mark or trade name previously used in the United States by another and not abandoned, as to be likely, when used on or in connection with the goods (or services) of the applicant, to cause confusion, or to cause mistake, or deceive.

(e) Consists of a mark which, (1) when used on or in connection with the goods (or services) of the applicant is merely descriptive or deceptively misdescriptive of them, or (2) when used on or in connection with the goods (or services) of the applicant is primarily geographically descriptive or deceptively misdescriptive or them, except as indications or regional origin may be registerable, or (3) is primarily merely a surname.

The Lanham Act states that applications and procedures for service mark registration shall conform as nearly as practicable to those prescribed for the registration of trademarks. The Act

defines the term "service mark" but gives no definition of the word "service" itself. The task of defining "service" was left to the administrators of the Act and to the courts. It has been speculated that the definition of "services" contemplated by Congress was deliberately left open since it was and remains virtually impossible to anticipate the myriad of services likely to be offered under a service mark. A review of the Congressional hearings held in connection with the service mark legislation shows that the drafters intended a service mark registration to benefit such familiar services as banking, utilities, transportation, laundries and radio.

The determination of what is a *service* for purposes of U.S. registration is sometimes difficult. The very first case to interpret an allegation of infringement of a federally registered service mark under the Lanham Act of 1946 probably arrived at the wrong conclusion. The case was Springfield Fire and Marine Insurance Company vs. Founders Fire and Marine Insurance Company[1]. In that case the plaintiff, an insurance company, was engaged in the business of writing fire, marine and other similar types of insurance and used a picture of a covered wagon drawn by an ox as a service mark for insurance services. The service mark first appeared on the insurance policies, on advertising materials for the company and on company stationery in 1926 and the service mark was federally registered on September 21, 1948.

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[1] 115 F. Supp. 787, 99 USPQ 38 (DCCAL. 1953).

The defendant, a competing insurance company, used a similar covered wagon in a somewhat different presentation, i.e., the oxen are drawing the Conestoga wagon in the other direction on its insurance policies and advertising materials. The plaintiff objected to this and alleged service mark infringement. In addressing the issue of whether there was infringement, the District Court (incorrectly, I believe) reached the conclusion that despite the federal registration and 27 years of continuous use, the plaintiff's service mark had not acquired an association with the services to such an extent as to perform "a true trademark function." On these facts today, a completely different result would in all likelihood be reached. Today, a valid service mark comes into existence when a service is offered under the mark. The offering can be in advertising or any other way as long as the mark is used to distinguish the new service from competing services. In order for a mark to be federally registerable as a service mark, the matter presented in an application must both function as a service mark and identify the services recited in the application.

Over the years, the United States Patent and Trademark Office has developed guidelines to determine what legally can be recognized as a *service* for purposes of obtaining a registration. Generally, the services being offered under the service mark must be (1) a real activity, (2) performed to the order of, or for the benefit of someone other than the applicant, and (3) the activity performed must be qualitatively different from anything necessarily

done in connection with the sale of goods or the performance of another service.

It is sometimes difficult to say whether a service is being offered under a service mark or goods are being sold under a trademark. For example, assume that I advertise my service of manufacturing custom plastic parts to another's specification and order. My advertising uses my mark "*BANNER*". I promote my services to the auto industry in flyers bearing the mark "*BANNER*". I also place "*BANNER*" on each molded automobile part I manufacture and sell. If I receive an order from Ford Motor Company to manufacturer ten million plastic automobile door lock knobs per their written specifications, am I selling goods, providing a service, or both? Under the Lanham Act as it is now interpreted, I believe I can register the mark "*BANNER*" as a trademark in connection with automobile door lock knobs and as a service mark for services identified as the custom manufacture of molded plastic parts to the order of another. The services offered comply with the three part test.

The difference between a real service and an incidental service is illustrated by the case of In re Sun Valley Waterbeds Inc.[2] In that case, the mark "*S.M.A.R.T.*" was found to be a proper service mark registration for warranty services for promoting the sale of waterbeds. Applicant sold waterbeds made by others, and in connection with such sales offered an additional warranty of its own over and above the makers' warranties. The term "*S.M.A.R.T.*"

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[2] 7 USPQ2d 1825 (TTAB 1988).

was an acronym for "Sun Valley Waterbeds Mattress Assured Replacement To You." Since applicant's warranty services were offered above and beyond the normal warranty that is conventionally available in the industry, the service was real and sufficient to support a registration.

The service must be for the benefit of another. The term "*AQUATENNIAL*" was held not to be registerable as a service mark for the service of advertising a celebration in Minneapolis, Minnesota and for advertising the recreational and commercial advantages of Minneapolis and the State of Minnesota. The Court held that the word "*AQUATENNIAL*" was used to identify the "particular event" occurring in Minneapolis and not as an indication of origin of the sale or advertising of an advertising service for that event.[3] The service was not for the benefit of another.

The activity performed must be qualitatively different from anything necessarily done in connection with the sale of goods or the performance of another service. In the case of In re El Torito Restaurants Inc.,[4] the Trademark Trial and Appeal Board upheld the refusal to register *"MACHO COMBOS"* as a service mark for restaurant services, where the only use had been to identify applicant's Mexican food entrees. Use of a term to identify a food item in a restaurant is not use sufficient to support registration of the

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[3] *Ex-party Minneapolis Aquatennial Association*, 104 USPQ 152 (COM'R 1955).

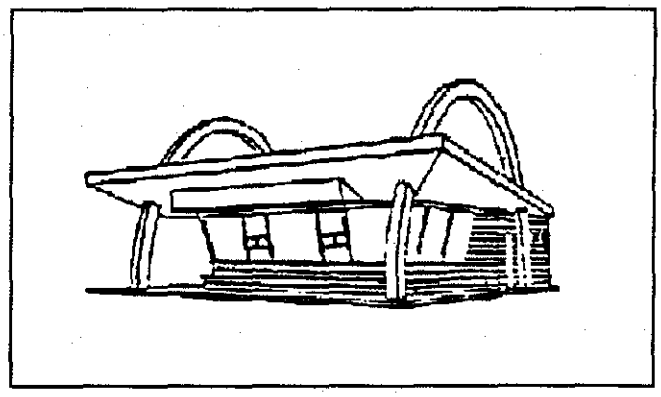
[4] 9 USPQ2d 2002 (TTAB 1988).

term as a service mark. Another example of this requirement could be taken from the prior "*BANNER*" illustration. If parts were shipped to Ford in boxes containing the mark "*BANNER*", that shipment per se would not be considered sufficient for registering "*BANNER*" for packaging and shipping services.

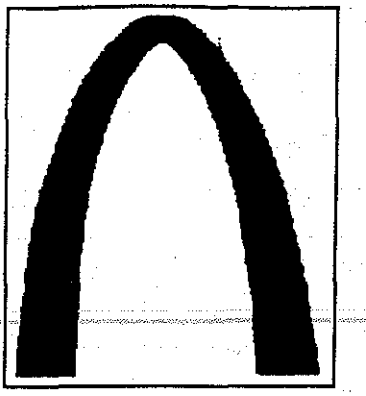
The requirement that the applicant must be rendering a service does not place a limitation on the nature or type of service which is being performed under the mark. As with trademarks, a service mark can be almost anything that identifies the service and distinguishes it from competing services. For example, a service mark might take the form of a group of individual notes (but not a song) which clearly identifies a network. A famous U.S. service marks identifying telecommunication and radio services is owned by the National Broadcasting Company and is covered by Registration 0523616. The service mark is a sequence of chime like musical notes which in the key of C sound the notes G E C. On television, this is used in connection with the symbol of a peacock to identify broadcasting services from the National Broadcasting Corporation. A service mark may be the design or appearance of a building as long as it is used to identify and distinguish the services of its owner. In the case of In re Griff's of America, Inc.[5] an application was filed for federal registration of the building design as a service mark for restaurant services. The Trademark Trial and Appeal Board refused registration on the basis that there was no proof of use of the design as a mark for applicants

[5] 157 USPQ 592 (1968, TTAB).

services. However, the Board recognized that a building design is capable of functioning as a mark; (". . . of primary importance in determining the registrability of a building design is whether it is in fact being used as a mark in the promotional and sale of the services for which registration is sought, i.e., on menus, letterheads, newspaper advertising, and the like, rather than merely as a building per se."). While each case must turn on its own special facts, it can be argued that merely providing services from a distinctively designed building is use sufficient to establish service mark significance under the Lanham Act. One of the better known and now mature building designs registered under the Lanham Act is the McDonald's drive-in restaurant reflected in Registration No. 764,837 for drive-in restaurant services.



Today the McDonald's arch design is known around the world for restaurant services.



A costume can also be a registered service mark. In the case of In re Red Robin Enterprises, Inc.[6] the Board held that a bird costume is registerable for entertainment services. A photo of a person wearing the costume is a sufficient specimen of use. The existence of another registration for the same costume for restaurant services fills in the evidentiary gap as to proof that the costume would be perceived as a service mark and not merely as an ornamental design for which registration is not allowed.



In the time remaining I would like to share other examples of service marks in the U.S. The International Classification System

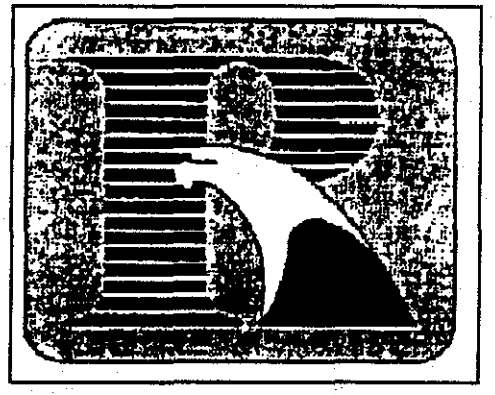
[6] 222 USPQ 911 (TTAB 1984).

contains eight service mark classes. The following illustrates the kinds of service mark registrations and services that exist in each of these classes:

Class 35 - Advertising and business

OPEN HOUSE LINE
US CLASS: 101 (Advertising and Business)
INTL CLASS: 035 (Advertising and Business)
STATUS: Registered; Supplemental register REG. NO.: 1644130
REG. DATE: May 07, 1991
GOODS/SERVICES: TELEPHONE INFORMATION SERVICES; NAMELY, PROVIDING INFORMATION ABOUT RESIDENTIAL REAL PROPERTIES WHICH ARE AVAILABLE FOR INSPECTION AND PURCHASE
FILED: September 12, 1989
DATE OF FIRST USE: May 25, 1989
ORIGINAL OWNER: LONG & FOSTER COMPANIES, INC. (VIRGINIA CORPORATION) FAIRFAX, VIRGINIA

Class 36 - Insurance and financial



R and Design
US CLASS: 102 (Financial and Insurance)
INTL CLASS: 036 (Insurance and Financial)
STATUS: Published for opposition
PUBLISHED: May 07, 1991
GOODS/SERVICES: BANKING AND RELATED FINANCIAL SERVICES
FILED: January 02, 1990
DATE OF FIRST USE: June 01, 1976
ORIGINAL OWNER: REPUBLIC NATIONAL BANK (UNITED STATES NATIONAL BANKING ASSOCIATION) COLUMBIA, SOUTH CAROLINA
CLAIMS: THE DRAWING IS LINED TO INDICATE A FEATURE OF THE MARK AND NOT TO REPRESENT COLOR.
DESIGN PHRASE: THE MARK CONSISTS IN PART OF A STYLIZED REPRESENTATION OF THE LETTER "R".

Class 37 - Construction and repair

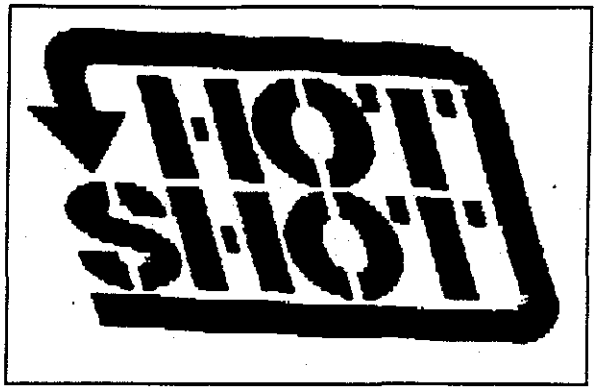


4 ACES SANITATION SERVICE INC. and Design
US CLASS: 103 (Construction and Repair)
INTL CLASS: 037 (Construction and Repair)
STATUS: Published for opposition
PUBLISHED: May 07, 1991
GOODS/SERVICES: SEWER, DRAIN, AND SEPTIC TANK CLEANING, REPAIRING, AND INSTALLATIONS
SERIES CODE: 74 SERIAL NO.: 076410
FILED: July 09, 1990
DATE OF FIRST USE: May 03, 1990
ORIGINAL OWNER: 4 ACES SANITATION SERVICE, INC. (OHIO CORPORATION) MIDDLETOWN, OHIO
DISCLAIMER: "SANITATION SERVICE INC."

Class 38 - Communication

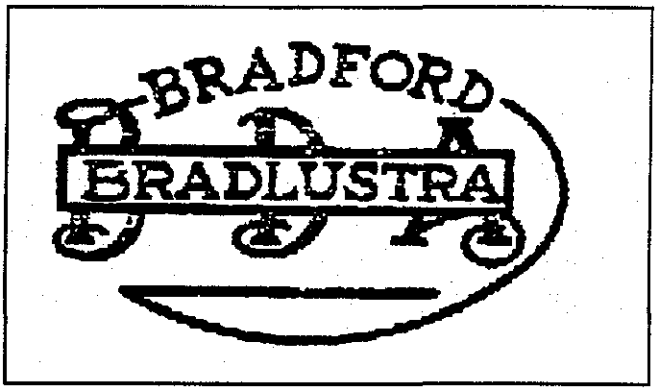
FAX-ON-CALL
US CLASS: 104 (Communications)
INTL CLASS: 038 (Communication)
STATUS: Registered; Supplemental register; (Intent To Use)
REG. NO.: 1644858
REG. DATE: May 14, 1991
GOODS/SERVICES: FACSIMILE TRANSMISSION SERVICES
FILED: January 30, 1990
DATE OF FIRST USE: February 05, 1990
ORIGINAL OWNER: VOICE/FAX CORPORATION, THE (CALIFORNIA CORPORATION) WOODLAND HILLS, CALIFORNIA
EXTRA STATUS DATA: INTENT TO USE APPLICATION

Class 39 - Transportation and storage



HOT SHOT and Design
US CLASS: 105 (Transportation and Storage)
INTL CLASS: 039 (Transportation and Storage)
STATUS: Registered REG. NO.: 1375128
REG. DATE: December 10, 1985
PUBLISHED: October 01, 1985
GOODS/SERVICES: MESSENGER DELIVERY SERVICES
FILED: June 11, 1985
DATE OF FIRST USE: February, 1979
ORIGINAL OWNER: HOT SHOT DELIVERY, INC. (TEXAS CORPORATION) ; HOUSTON,TX
DESIGN PHRASE: THE MARK CONSIST IN PART OF THE WORDS "HOT SHOT".

Class 40 - Material treatment



BRADFORD BRADLUSTRA BDA and Design
US CLASS: 106 (Material Treatment)
INTL CLASS: 040 (Material Treatment)
STATUS: Renewed REG. NO.: 0522439
REG. DATE: March 14, 1950
REN. DATE: March 14, 1970
PUBLISHED: November 15, 1949

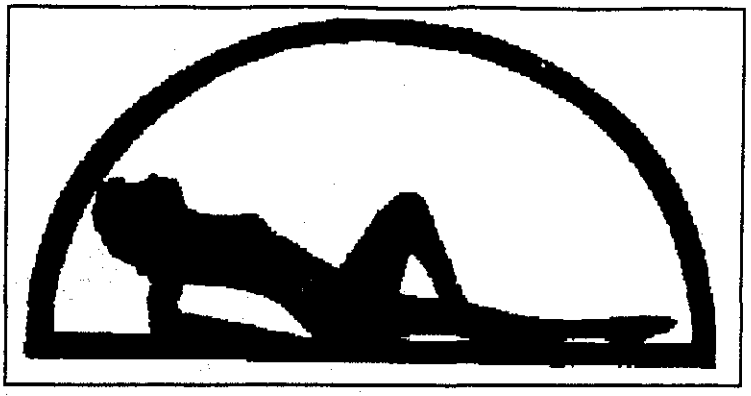
GOODS/SERVICES: RENDERING FABRIC A HIGH PERMANENT LUSTRE BY SPECIAL MERCERIZING

Class 41 - Education and entertainment



ST. LOUIS CARDINALS and Design
US CLASS: 107 (Education and Entertainment)
INTL CLASS: 041 (Education and Entertainment)
STATUS: Registered REG. NO.: 1290475
REG. DATE: August 14, 1984
PUBLISHED: May 22, 1984
GOODS/SERVICES: ENTERTAINMENT SERVICES-NAMELY, PRESENTATION OF BASEBALL EXHIBITIONS AND GAMES BOTH LIVE AND ON TELEVISION
FILED: November 16, 1982
DATE OF FIRST USE: April, 1966
ORIGINAL OWNER: ST. LOUIS NATIONAL BASEBALL CLUB, INC., ST. LOUIS, MO.
AFFIDAVIT SEC.: 8-15 AFFIDAVIT SEC. DATE: March 09, 1990
CLAIMS: NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE THE WORDS "ST. LOUIS", APART FROM THE MARK AS SHOWN. THE LINING AND/OR STIPPLING SHOWN IN THE MARK IN THE DRAWING IS FOR SHADING PURPOSES ONLY.*
DESIGN PHRASE: CARDINAL AND BASEBALL WITHIN CIRCLE

Class 42 - Miscellaneous



DESIGN ONLY Design Only
US CLASS: 100 (Miscellaneous)
107 (Education and Entertainment)
INTL CLASS: 042 (Miscellaneous)
041 (Education and Entertainment)
STATUS: Registered REG. NO.: 1651128
REG. DATE: July 16, 1991
PUBLISHED: April 23, 1991
GOODS/SERVICES: TANNING SALON AND HEALTH SPA SERVICES
SERIES CODE: 74 SERIAL NO.: 076280
FILED: July 09, 1990
DATE OF FIRST USE: January 01, 1985

Conclusion

As the need to harmonize national laws to conform to international trade agreements like GATT and TRIPS becomes apparent, more countries will move to fill in the existing gaps between their laws relating to service marks and the laws of other developed countries. Singapore, Japan and Switzerland are three of several countries which have recently amended their laws to accommodate service mark registrations. Service marks today are in wide use and acceptance in the United States and other developed countries around the world. When the service mark registration system for Japan comes into force in May 1992, it will be a boon to Japanese consumers and service providers.

PIPA Database Coversheet

(1) Title : Changes in United States Patent Practice Since October, 1990

(2) Date : August 26, 1991

(3) Source :

1)	Source	: PIPA
2)	Group	: United States
3)	Committee	: No. 1

(4) Author : John P. Sinnott

(5) Keywords: Fees, Surcharge, Space Research, Jurisdiction, Assignment, Cover Letter, Cover Sheet, Export License, Board of Patent Appeals and Interferences, Reissue, Reexamination, Divisional Application, Interference Motion, Motion to Amend Claims, Evidence, Stay of Judicial Proceeding, Discovery, Order, Sanctions, Inequitable Conduct, Champerty, Laches, Double Patenting, Reverse Doctrine of Equivalents.

(6) Statutory Provision(s) : Omnibus Budget Reconciliation Act, Public Law 101-580.

(7) Abstract :

The paper surveys United States patent legislation and changes in the rules of patent practice between October 1, 1990 and August 26, 1991. Published decisions of courts in the United States and from the Board of Patent Appeals and Interferences, in which there are one or more Japanese litigants, during the same time interval are also summarized.

CHANGES IN UNITED STATES PATENT PRACTICE SINCE OCTOBER, 1990

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AUGUST 24, 1991

1990

There have been a number of important changes in United States patent practice since **October, 1991.** These changes apply to diverse fields of activity that extend from the legal effect of United States patents in space vehicles that are under United States jurisdiction all of the way to new rules to increase Patent and Trademark Office fees.

There also have been several reported decisions that involve one or more Japanese business interests that have matured not only from United States Patent and Trademark Office matters, but also from other **inter partes** litigation. Because some of these reported decisions establish important United States case law, the salient rulings in these decisions also are summarized in this paper.

Patent Legislation

Patent and Trademark Office fees always are a matter of lively interest to all patent practitioners.

There has been enough United States Patent and Trademark Office fee activity and legislation in the past Association year, moreover, to sustain that interest at a very high level!

On November 5, 1990, **The Omnibus Budget Reconciliation Act** entered into law and, among other things, imposed a sixty nine percent **(69%)** surcharge on Patent and Trademark Office fees.[1] The fee increase took effect on November 5. This law, moreover, permits the Patent and Trademark Office to increase the surcharge from time-to-time in order to be certain that targeted amounts of money are collected during the five years following enactment. The targeted amounts are:

1991 - US$109,807,000
1992 - US$ 95,000,000
1993 - US$ 99,000,000
1994 - US$103,000,000
1995 - US$107,000,000

Because of the swift manner in which this surcharge was adopted, for a short time after the effective date of the surcharge the Office will permit those who paid fees according to the older schedule a chance to make up any deficiencies without loss of rights. The Office will contact those who submitted deficient fees and offer them an opportunity to pay the difference. This surcharge applies both to small entities and to those who do not qualify for that special status.

In order to comply, moroever, with the legal requirement to recover its operating costs in 1992 and 1993, a further revision to the fee schedule is expected to enter force on October 1, 1991.[2] Under this new schedule, the small entity discount is to be continued, but only with respect to patent application filing fees and fees for claims that are submitted with the application when it is filed.

On November 16, 1990, United States patent law was extended to space vehicles that are under United States jurisdiction.[3]

For a number of years, various legislative proposals were advanced to extend United States patent protection into space activity in order to encourage the commercial development of this technology. Under this new law, uncertainty with respect to which patent law, if any, applied to inventions made, used or sold in connection with a space vehicle that is under United States jurisdiction has been resolved. This specific legislation also should bring United States law into compliance with its obligations under the **Intergovernmental Agreement on Space Station Cooperation.** Canada, Japan, and the European Space Agency also are bound by this Agreement.

The Patent and Trademark Office also revised its rules with respect to the prosecution of patent applications in countries foreign to the United States.[4] Ordinarily, a United States patent applicant, who filed the original application in the United States, must either wait six months after the United States filing date, or acquire an export license (whichever occurs first) before filing a corresponding patent application abroad. This procedure can be very burdensome during foreign prosecution. For example, if the applicant introduces matter during the foreign prose-

cution that was not within the four corners of the application as licensed, under the law before amendment in 1988, an additional export license was required for the supplemental material. A failure to obtain the additional license could result in a loss of United State patent rights. The new Patent and Trademark Office rules implement the intention of the **Patent Law Foreign Filing Amendments Act of 1988** and obviate the need for the additional license in most instances.

New rules on recording patent and trademark assignments were published for comment on **April 25, 1991.** Briefly, it had been customary, but not obligatory to submit a **"cover letter"** to the Patent and Trademark Office when submitting assignment documents for recording. These **"cover letters"** or **"cover sheets"** now are expected to become obligatory. The **"cover letter"** must refer to the patent applications and patents, trademark applications and trademark registrations against which the document is to be recorded. Separate sheets must be submitted for patents and for trademarks. These sheets must contain:

1. **The name of the party conveying the interest;**
2. **The name and address of the party receiving the interest;**

3. **A brief description of the interest conveyed or the transaction recorded;**

4. **Appropriate identifying numbers for each document to be recorded;**

5. **The name and address of the party to whom correspondence relative to the recording is to be sent;**

6. **The number of applications, patents or registrations and the total fee;**

7. **The date the document was executed;**

8. **The domestic representative of a foreign assignee; and**

9. **The signature of the party submitting the document for recording and verification that the cover sheet information is correct.**

Verification, as required in 9., above, is not necessary if the submitted documents relate to patents and patent applications and the cover sheet is signed by a registered patent attorney, or if the submitted documents relate only to trademark registrations or applications and are signed by an appropriate attorney.

A sample cover sheet for patent and patent application assignment recording is reproduced after the **Footnotes** appended to this paper.

Judicial Decisions

Because the legal system in the United States is a common law system, a full understanding of the United States patent law requires a study not only of the pertinent patent statutes and rules of practice, but also of the relevant judicial decisions.[6] Toward the end of updating case law of special interest to this Association, those published decisions that involve Japanese parties which have been reported since October, 1990 are summarized in this paper. For the purpose of simplified presentation, these case summaries are presented in two sections. The first section reports published decisions of the **United States Patent and Trademark Office Board of Patent Appeals and Interferences.** This line of decisions relate only to those matters involved with the decision to grant a patent or to modify a patent after issuance. The second section relates to those decisions that have been reported from the **various courts in the United States since October, 1990.** These decisions publish, in the main, case law that relate either directly or indirectly to patent infringement issues.

Board of Patent Appeals and Interferences

Ex parte Morimoto, 18 USPQ 2d 1540, October 1, 1990, is a most important decision. This case relates to a patent application that matured from a sequence of divisional and continuation applications dating back to April 30, 1975. The applicant was trying, through the application under consideration, to acquire claims that were directed to subject matter that had been cancelled in the course of a reexamination of a patent that had issued from one of the divisional applications in the sequence that led to the case on appeal.

The Board held, in essence, that once a patentee has cancelled patented claims through a voluntary disclaimer, the abandoned subject matter cannot be recaptured. In this respect, the Board also noted that Patent and Trademark Office review of the validity of patented claims is limited to reissue or reexamination proceedings and this limitation cannot be circumvented by transferring the claims in question to a patent application that was not filed under the reissue or reexamination statutes.

Two decisions from the Board relate to interference practice. In **L'Esperance v. Mishimoto 18 USPQ 2d 1534, March 20, 1991,** the Board dismissed a Mishimoto motion to amend some claims to distinguish over the prior art and over a corresponding interference count. The Board held that the rules fail to permit amendment to, or adding claims for the purpose of having them designated as not corresponding to an interference count.

Irikura v. Petersen, 18 USPQ 2d 1362, January 14, 1991 also relates to interference motions, among other matters. Two specific holdings in this case are of particular interest. The Board, for example, held that the Examiner's decision that three applications each defined individual patentable inventions and that there should be three separate interferences was correct. The burden of persuading the Board to adopt an opposite view was placed on the party who urged that contrary view. A second issue addressed by the Board is quite important from the standpoint of evidence. With respect to this second issue, the Board held that submission of patents accompanied by attorney argument does not take the place of testimony by experts with

regard to equivalency of certain chemical compositions.

Court Decisions

The first judicial decision to be reviewed is **Brown v. Shimano American Corp., 18 USPQ 2d 1496, District Court, D.C., California, January 29, 1991.** The Court, in this case, granted a stay in a patent infringement action to permit the Patent and Trademark Office to consider a defendants' request to the Office to reexamine the patent in suit.

The next two decisions involve a common plaintiff, **Refac International Ltd.** The Court of Appeals for the Federal Circuit upheld in part, in **Refac International Ltd. v. Hitachi Ltd., 16 USPQ 2d, October 2, 1990,** the decision of the United States District Court for the Central District of California. Generally, the Court of Appeals sustained the decision of the lower Court in finding that the plaintiff, **Refac, had "steadfastly, consistently, and deliberately, denied the discovery they [the defendants] diligently pursued..." (p.1351).** The Court of Appeals, as a consequence, concluded that the

Refac appeal was frivolous and imposed on **Refac** payment to the defendants, the sum of their respective attorney fees and double their costs in responding to the appeal. The lesson to be learned in this case is, of course, to always respond to discovery orders.

The second **Refac** decision, **Refac International Ltd. v. Matsushita Electric Corp. of America was reported from the Federal District Court for the District of New Jersey on October 22, 1990 and was published in 17 USPQ 2d 1293.** The Court decided, in this case, that a **Special Master** appointed by the Court had the power to try issues of inequitable conduct, champerty, laches and double patenting, as well as a defense based on the reverse doctrine of equivalents.*

Summary

From the foregoing survey, it is clear that important improvements in the United States patent statutes, rules of patent practice and case law have taken place since

***The accused product falls within the literal meaning of the patent claim, but is so far changed in principle from a patented article that it performs the same or a similar function in a substantially different way (p. 1296).**

October of 1990. This paper should provide you with a further appreciation for these changes and, should you have any questions about these matters, please address them to me at this time.

Thank you.

FOOTNOTES

1. **HR 5835; Omnibus Budget Reconciliation Act of 1990 (Public Law 101-508).**

2. **1126 Trademark Official Gazette 56, May 21, 1991.** The date on the Certificate of Mailing is to be considered the date of receipt by the Office for fee calculation purposes, subject to some exceptions (e.g., international and trademark application filings). An **"Express Mail"** filing date, however, applies to any fee.

3. Public Law 101-580; S.459.

4. 56 Federal Register 1924.

5. Public Law 100-418, subtitle B.

6. **"Origins of Patent Law,"** John P. Sinnott, **Patent and Copyright Laws,** Virginia State Bar, 1990, Williamsburg, p. 151 et seq.

PATENTS ONLY

To the Honorable Commissioner of Patents and Trademarks:
Please record the attached original document or copy thereof.

PATENTS ONLY

1. Name of Party(ies) conveying an interest:

2. Name and Address of Party(ies) receiving an interest:

Name:_____
Internal Address:_____
Street Address:_____
City:_____
State:_____ Zip:_____

3. Description of the interest conveyed:

☐ Assignment ☐ Change of Name ☐ Other _____
☐ Security Agreement ☐ Merger

4. Application number (s) or patent number (s). Additional sheet attached? ☐ Yes ☐ No
If this document is being filed together with a new application, the execution date of the application is:

_____
Date

A. Patent Application No.(s)

B. Patent No. (s)

5. Name and address of party to whom correspondence concerning document should be mailed:

Name:_____
Internal Address:_____
Street Address:_____
City:_____
State:_____ Zip:_____

6. Number of applications and patents involved:

7. Amount of fee enclosed or authorized to be charged:

8. Deposit account number (Attach duplicate copy of this form if paying by deposit account):

DO NOT USE THIS SPACE

9. Date of execution of attached document _____
10. I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed on:

_____
Date

Signature

Name of Person Signing

PIPA Database Coversheet

(1) Title : 1991 U.S. PIPA Survey on EVALUATION OF INVENTIONS

(2) Date : August 15, 1991

(3) Source
1) Source : PIPA
2) Group :
3) Committee :

(4) Author(s)
: Bernard A. Donahue
:

(5) Keyword(s): Evaluation of Inventions
Purposes for Filing Patent Applications
Maintenance Fees

Statutory Provision(s) : None

(7) Abstract

This paper presents preliminary comments on some of the results of a PIPA Survey of U.S. companies with respect to evaluation of inventions and the purposes for filing of patent applications. Forty U.S. companies responded to the Survey. The Survey results are intended for use in joint panel discussions at the PIPA 22nd Congress by the U.S. and Japan Committee No. 1(2).

1991 U.S. PIPA SURVEY ON EVALUATION OF INVENTIONS

This paper will present a brief summary report of some of the results of a Pacific Industrial Property Association (PIPA) Survey of U.S. PIPA member companies taken in August of 1991 on the subject of "Evaluation of Inventions". The survey data is intended for use in joint panel discussions at the PIPA 22nd Congress by the U.S. and Japan Committees No. 1(2). The survey form was designed by the Japanese Committee. It has been distributed to PIPA members in Japan and in the U.S. This paper will review, and provide preliminary comments on, some of the data obtained from U.S. companies.

Comments will be made on the results of survey questions in the order in which they were included in the survey form, a copy of which is included as Attachment A to this paper.

I. INFORMATION ON ENTERPRISE

I.Q1. Industry Category:

Chemical Companies	23
Electronic Companies	8
Machine/Metal Companies	9

I.Q2. The average annual number of invention disclosures received by these U.S. companies was 366, ranging from a high of 2,100 to a low of 30.

I.Q3. For these companies, the average percentage of the annual total number of invention disclosures on which patent applications were filed in the U.S. was 58%.

I.Q4. The average percentage of U.S. patent applications on which corresponding foreign applications were filed in any country was 69%.

I.Q5. The average percentage of U.S. patent applications on which foreign patent applications were filed in Japan was 63%.

I.Q6. Only 1 of the 40 companies responding to the Survey had filed any Statutory Invention Registrations in 1990, and that company had filed 3.

II. EVALUATION OF INVENTION

II.Q1. The results of this question on the purpose of filing patent applications are set forth in graphic form in Attachment B to this paper. As can be seen, "exclusive rights" were indicated as important by almost all companies responding. "Competitive rights" were, overall, the second most important category. "Defensive rights" were the third most favored response and "royalty" ranked fourth, with electrical companies more interested in royalty than chemical and mechanical companies. "Peripheral rights" were fifth and last, being regarded as significant by chemical and electronics companies but not by the mechanical companies.

II.Q2. Only 5 of the 40 companies responding reported any changes in the purposes for filing patent applications in the past five years.

II.Q3. Reasons for changes in purposes for filing in the past five years by those companies included: easier patent enforcement because of holdings by the Court of Appeals for the Federal Circuit; increased company interest in royalty income; a desire to obtain more process patents; and less company interest in royalties.

II.Q4. The data from responses to this question on "timing", or when the invention is evaluated, are presented in graphical form in Attachment C to this paper.

It can be seen that "At U.S. patent application" was the most frequent response, with "At foreign application" and "At payment of maintenance fees" each running a close second.

II.Q5.

(1) The question is whether the companies made reference to previously recorded invention evaluations for the next evaluation and 62% of the respondents said that they did.

(2) This question asks when is the most severe invention evaluation for your company and the responses are set forth graphically in Attachment D to this paper. It can be seen that the U.S. companies responding had the most severe evaluation either prior to or at the time of deciding to file patent applications. At payment of maintenance fees was indicated as the time of most severe evaluation by a few chemical and mechanical companies.

II.Q6.

(1) At the time of U.S. patent application, the company organization or department evaluating the invention was indicated most often to be the Patent Department with an Evaluation Committee being a close second. Many responses indicated that both the Evaluation Committee and the Patent Department made an evaluation. Evaluation Committee members usually included Marketing and R&D or Engineering organizations.

(2) This question on the department evaluating the inventions at the time of foreign patent applications received responses quite similar to the previous question II.Q6.(1) with somewhat more companies using an Evaluation Committee. These Evaluation Committees included more marketing people than the Evaluation Committees used at the time of U.S. patent application.

(3) The patent department most often (in about 75% of the companies) does the evaluation of the inventions at the time of request for examination of foreign cases.

(4) The patent department makes the evaluation at the time of an Office Action in all but a few companies.

(5) Again, the patent department, in most companies surveyed, makes the evaluation at the time of payment of the issue fee.

(6) At payment of maintenance fees, the responses indicate that patent department performs the evaluation for about one-half of the companies and an evaluation committee does this for most of the rest of the companies surveyed.

(7) This question asks which of the listed items do the companies evaluate at the time of U.S. patent application. The most often cited item in the responses was "Novelty/Nonobviousness", followed by "Exclusiveness", "Profit", "Technical Evaluation", and "Restraint of Others".

This question also asks about the purpose of the evaluation. The most often cited purposes were "Restricting application numbers" and "Deciding priority for management". This question also asks whether there have been any changes in the last 5 years. All but two companies indicated no changes. These 2 companies indicated that more chemical process patents were being filed, more patents were being issued, and licensing profits were more of a factor.

General comments on the balance of question Q7. and questions Q8. through Q11. are difficult to make because of the large amount of data involved, most of which has not been analyzed at the time of this writing. Accordingly, comments on these portions of the Survey will be reserved for the panel discussion on Evaluation of Inventions at the PIPA 22nd Congress.

ATTACHMENT A

PIPA 1st Committee 2nd Group (1991)

Survey for Evaluation of Invention

I. Information on Enterprise

Q 1. Industry Category (Please Check One)

☐ Machine/Metal (Transportation/Power Plant/Machinery Equipment/Metal Products)

☐ Electronics (Electrical Equipment/Computer/Communication/Home Electrical Appliances /Audio/Measuring/Electric Wire/ Electric Parts)

☐ Chemicals (General Chemistry/Organic Chemistry/Rubber and Plastics Products/Paints/Petroleum/Petroleum Refining/Fiber/Pharmacy/Food/Cosmetics)

Q 2. How many employee invention disclosures were received by your patent department in 1990?

_____ cases

Q 3. What was the percentage of your total number of invention disclosures for 1990 on which patent applications were filed in the U.S.?

_____ %

Q 4. What is the percentage of U.S. patent applications on which foreign patent applications are filed in any country?

_____ %

Q 5. What is the percentage of U.S. patent applications on which foreign patent applications are filed in Japan?

_____ %

Q 6. How many Statutory Invention Registrations did your company file in 1990?

_____ cases

II. Evaluation of Invention

Q 1. What is the purpose of your filing patent applications?
(Please check up to three items from the below)

- ☐ ① To obtain exclusive right for the specific items of your products. (Intentionally exclude others from the same business field)
- ☐ ② To secure competitive rights in regard to other's rights. (i.e., with conflicting company)
- ☐ ③ To obtain the peripheral patent rights in regard to the basic patent owned by others and to enter new business field.
- ☐ ④ To prevent others from acquiring patent rights.
- ☐ ⑤ To obtain royalty.
- ☐ Others (Specify: _____)

Q 2. Do you think that there are any changes in the above purposes compared with those of 5 years ago?

☐ Yes ☐ No

Q 3. If the answer was "Yes" in Q 2., what items were changed? Please use ① - ⑤ in Q 1. as items and, when and why did you change them?

Changed items: _____ when: _____
why: _____

Q 4. When does your company evaluate the Invention?
(Please check as many as applicable)

- ☐ At U.S. patent application
- ☐ At foreign application
- ☐ At request for examination
- ☐ At office action
- ☐ At payment of issue fee
- ☐ At payment of maintenance fee (How many times: _____)
- ☐ Others (Specify: _____)
- ☐ Have not evaluated

Q 5. This question is only for companies which evaluate the Invention at plural times. Please reply to the following:

(1) Does your company refer to the latest evaluation for the next evaluation?

☐ Yes ☐ No

(2) When is the most severe evaluation in your company?

☐ From conception to deciding patent application
☐ At deciding patent application ☐ At request for examination
☐ At office action ☐ At payment of issue fee
☐ At payment of maintenance fee (How many times: _____)
☐ Others (Specify: _____)

Q 6. Which department evaluates the Invention at the following stage? (Please check as many as applicable)

(1) At U.S. patent application

☐ Patent Dept. ☐ Engineering Dept.
☐ Evaluating Committee (Members are: _____)
☐ R & D Dept. (Other than Engineering Dept.)

(2) At foreign patent application

☐ Patent Dept. ☐ Engineering Dept.
☐ Evaluating Committee (Members are: _____)
☐ R & D Dept. (Other than Engineering Dept.)

(3) At request for examination (foreign countries)

☐ Patent Dept. ☐ Engineering Dept.
☐ Evaluating Committee (Members are: _____)
☐ R & D Dept. (Other than Engineering Dept.)

(4) At Office Action

☐ Patent Dept. ☐ Engineering Dept.
☐ Evaluating Committee (Members are: _____)
☐ R & D Dept. (Other than Engineering Dept.)

(5) At payment of issue fee

☐ Patent Dept. ☐ Engineering Dept.

☐ Evaluating Committee (Members are: _____)

☐ R & D Dept. (Other than Engineering Dept.)

(6) At payment of maintenance fee

☐ Patent Dept. ☐ Engineering Dept.

☐ Evaluating Committee (Members are: _____)

☐ R & D Dept. (Other than Engineering Dept.)

Q 7. Which item and for what purpose does your company evaluate for the Invention? (Please put single circles ○ for significant items)

* If possible, please put double circles ◎ for the most significant three items.

(1) At U.S. patent application

Items

☐ Novelty/Non-obviousness ☐ Technical evaluation

☐ Exclusiveness ☐ Restraint of others

☐ Difficulty for practice ☐ Life of invention

☐ Replaceable idea (Many or few for substitutional idea)

☐ Self-execution ☐ Confirming infringement

☐ Conception ☐ Originality

☐ Profit ☐ Patent utilization rate

☐ Others (Specify: _____)

Purpose

☐ Restricting application numbers

☐ Deciding the priority for management

☐ Selecting the indispensable patent right

☐ Classification

☐ Others (Specify: _____)

Are there any changes for the items compared with those of 5 years ago?

☐ No

☐ Yes (Which items: _____)

(2) At Office Action

Items

- ☐ Novelty/Non-obviousness
- ☐ Technical evaluation
- ☐ Exclusiveness
- ☐ Restraint of others
- ☐ Difficulty for practice
- ☐ Life of invention
- ☐ Replaceable idea (Many or few for substitutional idea)
- ☐ Self-execution
- ☐ Confirming infringement
- ☐ Conception
- ☐ Originality
- ☐ Profit
- ☐ Patent utilization rate
- ☐ Others (Specify: _____)

Purpose

- ☐ Deciding the priority for management
- ☐ Selecting the indispensable patent right
- ☐ Others (Specify: _____)

Are there any changes for the items compared with those of 5 years ago?

- ☐ No
- ☐ Yes (Which items: _____)

(3) At payment of issue fee

Items

- ☐ Novelty/Non-obviousness
- ☐ Technical evaluation
- ☐ Exclusiveness
- ☐ Restraint of others
- ☐ Difficulty for practice
- ☐ Life of invention
- ☐ Replaceable idea (Many or few for substitutional idea)
- ☐ Self-execution
- ☐ Confirming infringement
- ☐ Conception
- ☐ Originality
- ☐ Profit
- ☐ Patent utilization rate
- ☐ Others (Specify: _____)

Purpose

- ☐ Selecting the indispensable patent right
- ☐ Others (Specify: _____)

Are there any changes for the items compared with those of 5 years ago?

- ☐ No
- ☐ Yes (Which items: _____)

(4) At payment of maintenance fee

Items

- ☐ Novelty/Non-obviousness
- ☐ Technical evaluation
- ☐ Exclusiveness
- ☐ Restraint of others
- ☐ Difficulty for practice
- ☐ Life of invention
- ☐ Replaceable idea (Many or few for substitutional idea)
- ☐ Self-execution
- ☐ Confirming infringement
- ☐ Conception
- ☐ Originality
- ☐ Profit
- ☐ Patent utilization rate
- ☐ Others (Specify: _____)

Purpose

- ☐ Selecting the indispensable patent right
- ☐ Others (Specify: _____)

Are there any changes for the items compared with those of 5 years ago?

- ☐ No
- ☐ Yes (Which items: _____)

Q 8. This question is for the foreign applications.

(1) When does your company select and decide the foreign application?

- ☐ At the same time of U.S. application
- ☐ After the U.S. application
- ☐ Others (Specify: _____)

(2) How does your company decide countries for foreign application?

- ☐ Exporting goods
- ☐ Industrialized nations
- ☐ Existing competitors
- ☐ Existing subsidiary/factory
- ☐ Others (Specify: _____)

(3) Which item and for what purpose does your company evaluate for th Invention? (Please put single circles ○ for significant items)

* If possible, please put double circles ◎ for the most significan three items.

(1) At foreign patent application

Items

- ☐ Novelty/Non-obviousness
- ☐ Technical evaluation
- ☐ Exclusiveness
- ☐ Restraint of others
- ☐ Difficulty for practice
- ☐ Life of invention
- ☐ Replaceable idea (Many or few for substitutional idea)
- ☐ Self-execution
- ☐ Confirming infringement
- ☐ Conception
- ☐ Originality
- ☐ Profit
- ☐ Patent utilization rate
- ☐ Others (Specify: _____)

Purpose

- ☐ Restricting application numbers
- ☐ Deciding the priority for management
- ☐ Selecting the indispensable patent right
- ☐ Classification
- ☐ Others (Specify: _____)

Are there any changes for the items compared with those of 5 years ago?

- ☐ No
- ☐ Yes (Which items: _____)

(2) At request for examination

Items

- ☐ Novelty/Non-obviousness
- ☐ Technical evaluation
- ☐ Exclusiveness
- ☐ Restraint of others
- ☐ Difficulty for practice
- ☐ Life of invention
- ☐ Replaceable idea (Many or few for substitutional idea)
- ☐ Self-execution
- ☐ Confirming infringement
- ☐ Conception
- ☐ Originality
- ☐ Profit
- ☐ Patent utilization rate
- ☐ Others (Specify: _____)

Purpose

- ☐ Deciding the priority for management
- ☐ Selecting the indispensable patent right
- ☐ Saving cost
- ☐ Others (Specify: _____)

Are there any changes for the items compared with those of 5 years ago?

☐ No

☐ Yes (Which items: _____)

(3) At Office Action

Items

☐ Novelty/Non-obviousness
☐ Technical evaluation
☐ Exclusiveness
☐ Restraint of others
☐ Difficulty for practice
☐ Life of invention
☐ Replaceable idea (Many or few for substitutional idea)
☐ Self-execution
☐ Confirming infringement
☐ Conception
☐ Originality
☐ Profit
☐ Patent utilization rate
☐ Others (Specify: _____)

Purpose

☐ Deciding the priority for management
☐ Selecting the indispensable patent right
☐ Others (Specify: _____)

Are there any changes for the items compared with those of 5 years ago?

☐ No

☐ Yes (Which items: _____)

(4) At payment of issue fee

Items

☐ Novelty/Non-obviousness
☐ Technical evaluation
☐ Exclusiveness
☐ Restraint of others
☐ Difficulty for practice
☐ Life of invention
☐ Replaceable idea (Many or few for substitutional idea)
☐ Self-execution
☐ Confirming infringement
☐ Conception
☐ Originality
☐ Profit
☐ Patent utilization rate
☐ Others (Specify: _____)

Purpose

☐ Selecting the indispensable patent right

☐ Others (Specify: _____)

Are there any changes for the items compared with those of 5 years ago?

☐ No

☐ Yes (Which items: _____)

(5) At payment of maintenance fee

Items

☐ Novelty/Non-obviousness

☐ Exclusiveness

☐ Difficulty for practice

☐ Replaceable idea (Many or few for substitutional idea)

☐ Self-execution

☐ Conception

☐ Profit

☐ Others (Specify: _____)

☐ Technical evaluation

☐ Restraint of others

☐ Life of invention

☐ Confirming infringement

☐ Originality

☐ Patent utilization rate

Purpose

☐ Selecting the indispensable patent right

☐ Others (Specify: _____)

Are there any changes for the items compared with those of 5 years ago?

☐ No

☐ Yes (Which items: _____)

Q 9. Which subject and which items does your company use in order to evaluate the annual tendency for the applications?

(1) Domestic application

① Subject

☐ Number of applications to USPTO

☐ Number of claims at filing applications

☐ Ratio of application to invention

☐ Others (Specify: _____)

② Items (Please check up to three items)

- ☐ Past records
- ☐ Research & Development cost
- ☐ Possessing patent number
- ☐ Subject for research
- ☐ Ability of management
- ☐ Budget
- ☐ Number of inventors
- ☐ Rate of allowance
- ☐ Rate or number of execution
- ☐ Comparing other companies
- ☐ Amount sold
- ☐ Others (_____)

(2) Foreign application

① Subject

- ☐ Number of applications to USPTO
- ☐ Number of claims at filing applications
- ☐ Ratio of application to invention
- ☐ Others (Specify: _____)

② Items (Please check up to three items)

- ☐ Past records
- ☐ Research & Development cost
- ☐ Rate of allowance
- ☐ Rate or number of executions
- ☐ Comparing other companies
- ☐ Amount sold
- ☐ Others (Specify: _____)
- ☐ Number of inventors
- ☐ Rate of request for exam.
- ☐ Possessing patent's number
- ☐ Subject for research
- ☐ Ability of management
- ☐ Budget

Q 10. Does your company use an evaluation sheet and/or form in order to evaluate the invention?

☐ Yes ☐ No

Q 11. Please put your comment if your company has any problems in regard to the present evaluation system for the invention.

_____

_____

_____

_____

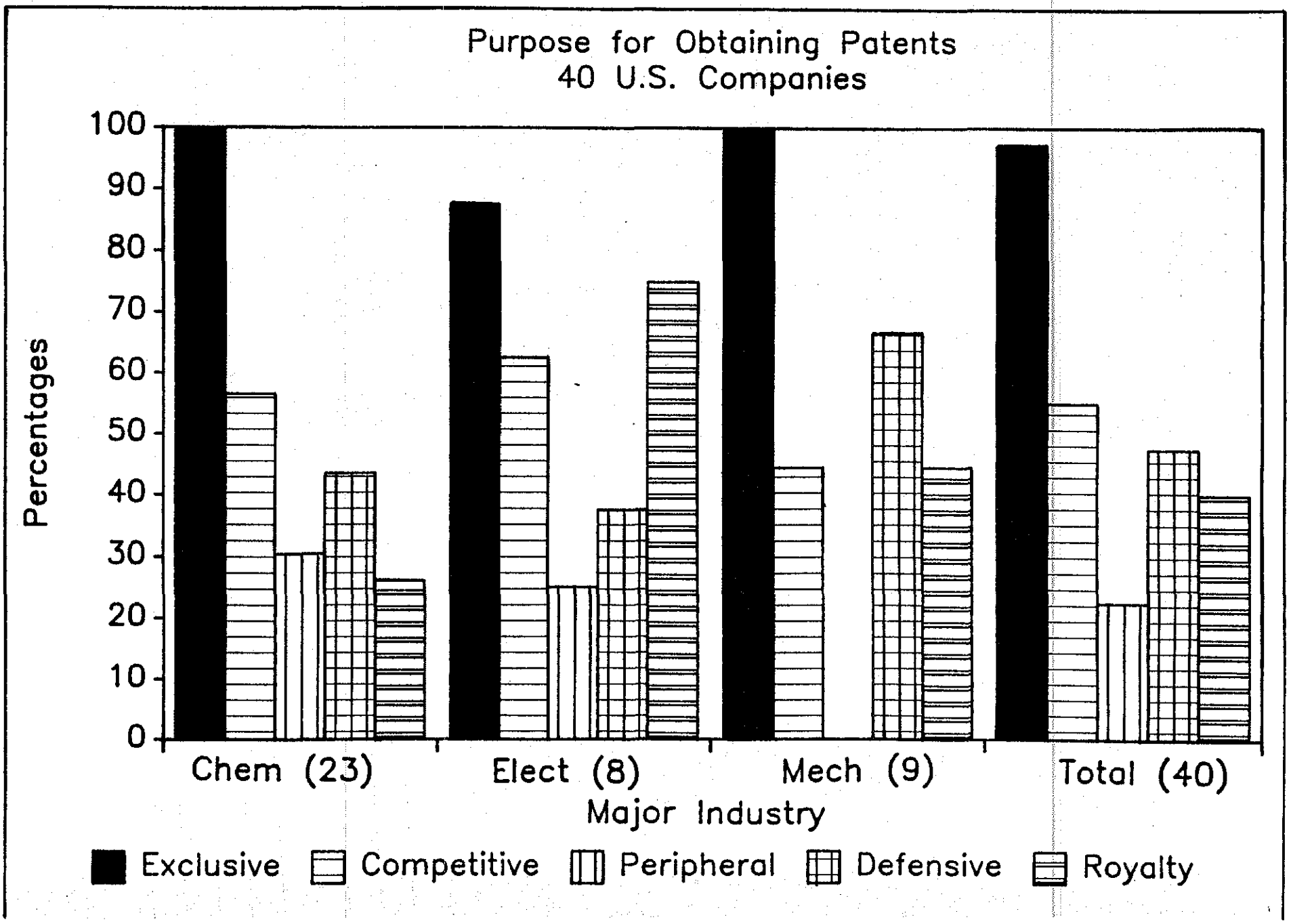
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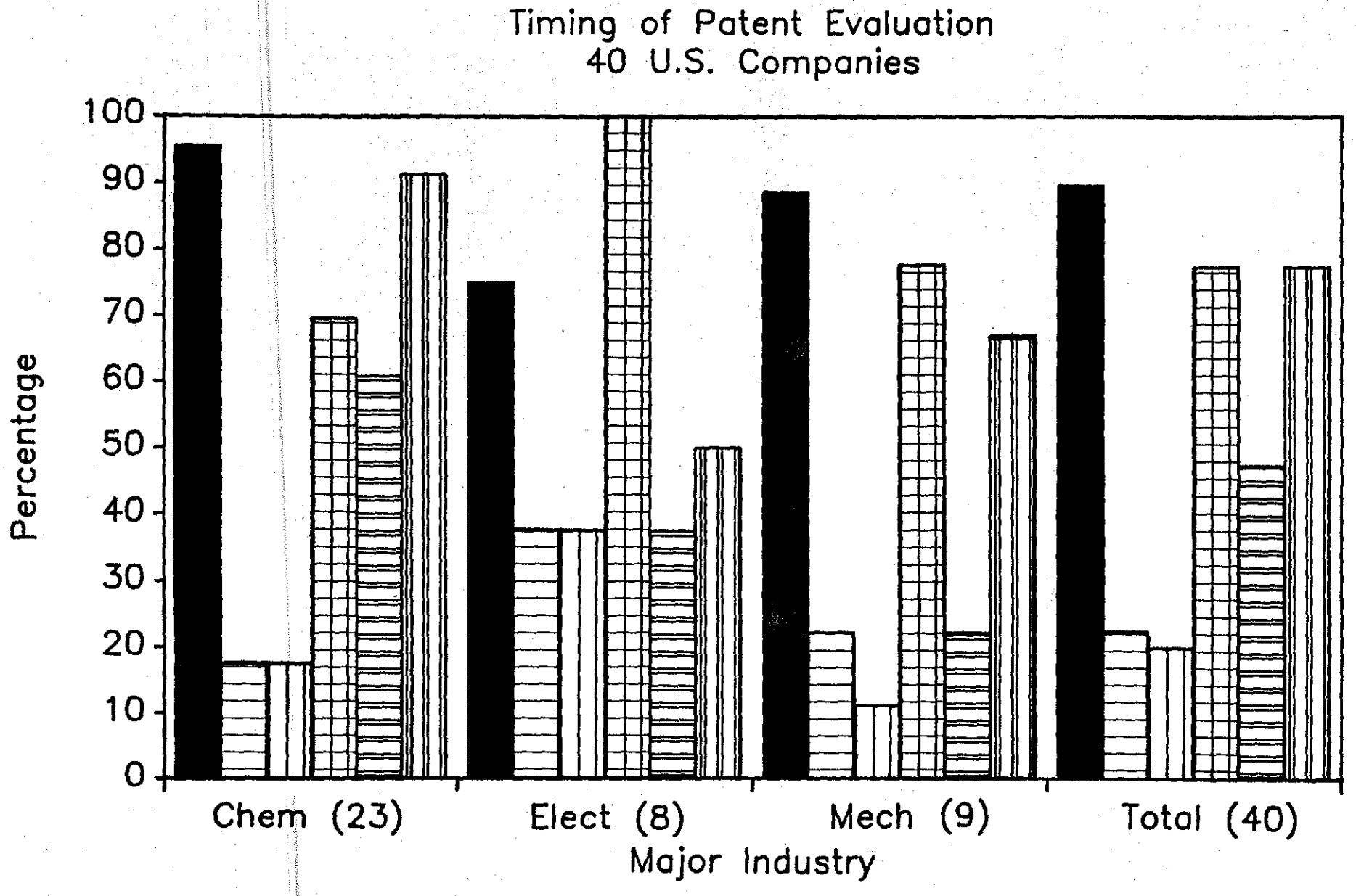
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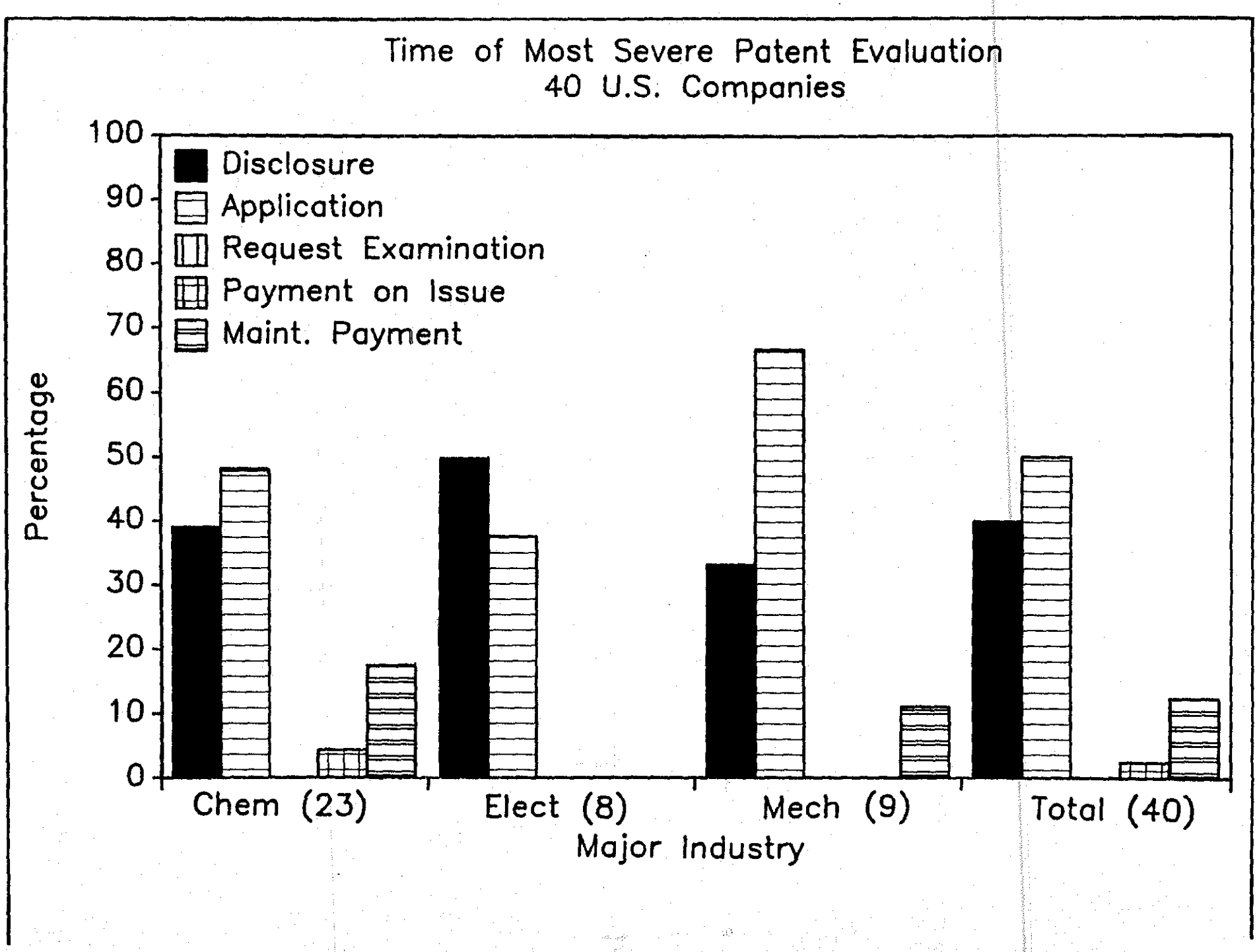
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ATTACHMENT B



ATTACHMENT C



ATTACHMENT D

(1) Title: Management and Licensing of Intellectual Property Between a Parent Company and Its Foreign Subsidiary

(2) Date : 10/91 (22nd, Rochester)

(3) Source:

1) Source: PIPA
2) Group: Japan
3) Committee: 2

(4) Authors:

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(5) Keywords: Globalization, foreign subsidiary, intellectual property, license, patent

(6) Statutory Provisions: 35USC184, 185, 15CFR §779.4(EAR)
Japanese Patent Code §35
Article 66-5 of Japanese Special Taxation Measure Law, IRC §482

(7) Abstract: Overseas activities by Japanese corporations have become quite active in recent years. They are incorporating subsidiaries in countries abroad, particularly in the United States, as the bases not only for manufacture but also for research and development (R&D). As they expand their activities in foreign countries, their subsidiaries are bound to generate intellectual properties and matters related to assignment and licensing of intellectual properties between a parent company and its foreign subsidiary become focused.

This paper discusses intellectual properties accrued by 100% owned subsidiaries of Japanese companies in foreign countries, especially in the United States, with particular emphasis on the ownership, statutory limitations and other practical matters such as compensation to inventors, filing procedures, evaluation and preservation of intellectual properties, to thereby clarify the care in management to be taken by parent companies.

International tax issues anticipated in licensing and assignment of intellectual properties between a Japanese parent company and its foreign subsidiary and product liabilities of the parent company as a licensor will also be discussed.

1. Introduction

As globalization advances among Japanese industries in recent years, various issues concerning the intellectual property management have realized by both of the parent companies in Japan and their foreign subsidiaries. In the days when the activities of such subsidiaries were limited to the import and sale of the products manufactured in Japan, the parent company was mainly concerned with patent infringements in the destination countries. With increasing invigoration of overseas investments of R&D and local manufacture, cases appear where a foreign subsidiary generates intellectual property or where assignment or licensing of intellectual property takes place between the parent company and its subsidiary.

In a situation such as this, Japanese companies must observe the laws related to intellectual properties in the subject country where its subsidiary is located, and handle licensing between them in a fair and just manner.

This paper focused on the various issues encountered in the management of intellectual-properties and licensing by Japanese companies and their subsidiaries in the United States, and discuss handling of inventions made in their U.S. subsidiaries, assignment or licensing of intellectual properties between a parent company and its subsidiary including matters related to international taxation and product liabilities. This paper would delineate some points requiring special consideration of Japanese companies in management of intellectual properties entailed by their R&D activities in overseas countries, particularly in the United States.

2. Management of Intellectual Property at Foreign Subsidiaries

2-1. Overseas Deployment of Japanese Corporations and Their Foreign Subsidiaries

Overseas activities by Japanese corporations began with incorporation of companies for sales of the products manufactured in Japan. They then went to incorporating subsidiaries for on-the-spot production. Their third step is being taken currently as they incorporate subsidiaries at the global strategic points

for R&D in order to advance technology development with international human resources. According to a survey, the number of foreign corporations held by Japanese corporations by more than 10% shares is as many as 12,500 in 1990. Such corporations in the United States account for more than 3,200 or as much as 26% of the whole.

Capital structure of such overseas subsidiaries ranges from fully owned subsidiaries by Japanese parent company to joint ventures with a foreign company or another Japanese company, local corporations of which capital has been purchased in part by a Japanese company, and those acquired through M&A. Such differences in capital structure are related to the management of intellectual properties accruing as the result of the subsidiaries' activities in a complex and remarkable way. If the parent company holds less than 50% shares of a subsidiary, the former's control is limited and the intellectual property management is influenced by the situation inherent to the subsidiary.

We would therefore like to base our discussion on the foreign subsidiaries over which the Japanese parent companies have sufficient control, particularly those established in the United States of which capital is held by 100% by the latter.

2-2. Mode of Intellectual-Property Management Followed by a Parent Company and Its Subsidiary

There are three typical modes by which Japanese corporations participate in the activities of their foreign subsidiaries and management of the results which are derived from their R&D activities. One of the three modes is the centralized management under which a parent company controls all the intellectual properties accrued at its overseas subsidiaries including their ownership. The second is the decentralized management under which autonomy and independence of subsidiaries are respected. The third is a compromise under which the managment is taken on a case-by-case basis. (See: Technology Management Conference Report dated October, 1990 "Globalization of R&D"). Each of the three modes has advantages and disadvantages respectively, and we

cannot say which is the mainstream. However, the manner of addressing intellectual property management differs depending on the type.

Three management types are summarized below.

(1) Centralized Management by Parent Company

This type of management takes the basic policy that the ownership of all the intellectual properties accrued at subsidiaries are assigned to the parent company. This policy will be enabled under the circumstance where the parent company have leadership in the world-wide development activities based on the full responsibility for the development costs.

Merits in this case are the use and licensing of intellectual properties accrued at the subsidiary under the unified policy of the parent company. Any intellectual-property dispute involving the subsidiary would be the responsibility of the parent company, thus enabling the latter to adjust the matter by considering the overall interest of the group. On the other hand, if all development results were to come under the control of the parent company, it seems that the morale of the subsidiary employees may be affected adversely.

(2) Decentralized Management

This type of management follows the basic principle of the subsidiary owning intellectual properties accrued at the subsidiary. Autonomy and independence of the subsidiary are respected and their employees are effectively motivated, although the parent company's intentions are not necessarily reflected in the use of rights and resolving disputes.

(3) Case-by-case Management

Different from the above two types having the definite management policies, interests of the parent company vis-a-vis its subsidiary are adjusted on a case-by-case basis.

In establishing a foreign subsidiary, it is advisable to deliberate the types of management as above mentioned in advance. Other factors that should be taken into consideration are the positional relation with a third party regarding the capital shares and the ownership of the original technology on which the activities are based.

2-3. How Intellectual Properties Are Generated at Foreign Subsidiary

Intellectual properties such as patents, knowhow and software may be handled in different ways depending on how they have been generated. While it is relatively simple for the case where the subsidiary carries out its activities on their own, their world-wide activities often generate intellectual properties as a result of joint efforts with the parent company or a third party. In the later case, special consideration should therefore be addressed appropriately on a case-by-case basis.

The manner in which intellectual properties generate is classified below.

(1) Intellectual Properties as the Result of Development Activities by the Subsidiary Alone

When the subsidiary carries out its corporate activities on its own, intellectual properties invented or made by the employees of such subsidiary are classified to this 1st case as the result of the subsidiary's activities. Ownership or management of such intellectual properties is determined by the management policy discussed above. If the subsidiary's aim is developing new businesses, the decentralized management may be more appropriate to facilitate the use of rights for their strategy. If the parent company is to direct the development project, on the other hand, and bear the costs, the centralized management is often taken so that all the development results would be subject to the unified policy of the parent company.

(2) Intellectual Properties Generated from the Activities Based on the Tchnology Transferred from the Parent Company

When the subsidiary is established for on-site production based on the basic technology transferred from the parent company and for developing the improvement technology, intellectual properties derived from such activities are classified to this 2nd case. For integrally managing or licensing the basic and the improvement technologies together, the centralized management by the parent company is preferable.

(3) Intellectual Poperties Generated as a Result of Joint Development with the Parent Company

When the parent company and its subsidiary carry out a joint development by sharing roles, inventions may be made separately or jointly. As well as in the case (2) above, the centralized management by the parent company is preferable for facilitating execution of an integrated strategy by the parent company.

(4) Intellectual Propertis Generated Out of Joint Development or Consigned Development with Third Party Corporations

Development activities may be carried out with third parties in a foreign country. It is recommendable to clearly determine the ownership of the right by considering the development costs and the employer of the inventor/creator.

As discussed above, intellectual properties generate at the subsidiary in various ways. Sufficient advance discussion should be held as to the ownership of the right, since complex relations regarding the rights accrue not only between the parent company and the subsidiary but also with third parties. Special care should also be taken for joint development with third parties because it may become necessary to use intellectual properties of the third party and its affiliate company.

2-4. Legal Restrictions Regarding Intellectual Properties Generated at a Subsidiary in the United States

As already discussed by referring to many references, certain restrictions are imposed on the outflow of technical data in Western countries. When taking out of the country intellectual properties such as inventions and knowhow generated in a foreign subsidiary for evaluation or patent filing, the related laws and ordinances of the country concerned should naturally be observed.

The United States, in particular, imposes detailed regulations on the technology export, while U.K., Germany and France have several less rigorous restrictions on the export or overseas filing of the technology generated in their country by laws and regulations. Discussion of the legal restrictions for handling

of intellectual properties generated in a U.S. subsidiary follows as a typical example.

(1) U.S. Patent Law and Rules of Practice

① Section 184 of the United States Patent Law provides that "except when authorized by a license obtained from the Commissioner, a person shall not file or cause or authorize to be filed in any foreign country prior to six months after filing in the United States an application for patent".

② Section 185 of the Law further provides that "notwithstanding any other provisions of law any person, and his successors, assigns or legal representatives shall not receive a United States patent for an invention if that person, or his successors, assigns, or legal representatives shall, without procuring the license prescribed in section 184 of this title, have made, or consented to or assisted another's making, application in a foreign country for a patent..."

(2) Export Administration Rules (EAR)

① EAR are the rules to administer and regulate the technology export from the United States (except the defence articles to be referred to later) under the supervision of U.S. Department of Commence. Technology export as used herein means not only transmission of the contents of intellectual properties (patents, knowhow, software) generated within the U.S. to outside but also transmission to foreigners within the country such as the Japanese employees detailed by the Japanese parent company. Special care is thus required for controlling the technical information in the subsidiary staffed by Japanese employees.

② EAR defines three kinds of licenses, GTDA, GTDR and the validated licenses, related to technical information. The export licenses are outlined below.

(a) General export license

Technical information classified as GTDA (General Technical Data Available to All Destinations) may be exported to all destinations without any restrictions. Even those of the technical areas requiring validated

licenses (VL), they may be exported under GTDA license so long as they are "generally available information" which have been published or reported at academic meetings.

Following is the list of information classified as GTDA.

* Generally available information which is disclosed in publications accessible by any interested parties, available for inspection at public libraries, published in patent publications, reported at public meetings, seminars, trade shows, etc.
* Scientific and educational information
* Information in patent applications originating in foreign countries

(b) License for General Technical Data Under Restriction (GTDR)

The license is applicable to export GTDR. 15 C.F.R. §779.4 provides the details of the technical data to which this license is applicable. Various restrictions are imposed depending on the destinations of the technical data exported under this license. Written assurance not to re-export the data from the destination may be demanded depending on the data. There are several forms of Written Assurance.

(c) Individual export license (Validated License)

When attempting to export products or technical data designated by EAR (composite materials, airplanes, machining technology, software and others which are highly sophisticated technology within limited ranges) to designated countries, an application for a VL for the subject deal must be submitted to the Office of Export Licensing (OEL) of the Department of Commerce, and obtain their approval in advance.

To determine whether the data can be practically exported as GTDR or requires a VL is most important, but the list of technical data requiring VL is not only detailed and voluminous but also updated every year. An expert should be called in for delicate technology. Watches for annual changes should also be kept depending on the need.

③ Exporting technical data without license constitutes an EAR violation and the exporter (U.S. subsidiary in this case) will be punished under the criminal, civil or administrative law. Even if the importer of the technical data (such as the Japanese parent company) had known that the technical data that was held as contravening EAR (such as acquired by self development, etc.) prior to the import, their contravention can not be a defense for EAR violation and will not be tolerated.

U.S. Rules of Patent Processing 37 C.F.R. §5.15 stipulates that "procedures under the Patent Law suffice for filing in foreign countries, and there is no need to obtain a VL from EAR for foreign filings". After filing in the United States, the Patent Law takes precedence but taking the invention out of country before domestic filing may cause problems under EAR.

(3) International Traffic in Arms Regulations (ITAR)

① State Department supervises ITAR which regulate arms export from the U.S. If parts and systems are "specifically designed or modified for military application (or defense articles)", the export of such tecnology is subject to ITAR-control. Depending on the technology, the product may be classified as such irrespective of the developer's specific intention. The U.S. Munitions List carries the articles classified as defence articles.

② In order to export the technical export under ITAR, individual licenses are required from the Office of Munition Control of the State Department. When the subject technology falls under the ITAR control, it will be deemed to contravene ITAR even with the license under EAR. Contravention is subject to punishments by the criminal, civil or administrative laws.

(4) How to Practically Address Legal Regulations Involving Activities of U.S. Subsidiary

Provisions of the Patent Law, EAR, etc. are applicable whether the inventors are the U.S. citizens or not so long as the intellectual property or technical data is generated

in the United States. In other words, if a Japanese completed intellectual property in the United States, the Patent Law, EAR, etc. are applied.

If intellectual property is generated in a U.S. subsidiary, for making their evaluation and handling, and decision whether to file or not and which country or countries to file, particularly if it is an invention, the engineer who created the intellectual properties is practically required to report or transmit the technical information including such intellectual property to his/her supervisor or the intellectual-property manager of the U.S. subsidiary.

A case which is particularly important and should be carefully treated is a case where the supervisor or the intellectual property manager is not a United States citizen (precisely speaking, he/she is not a person who has obtained a Green-Card), because such report or transmission of the technical information will fall into "export of information" for EAR or ITAR purpose.

As a matter of course, it is clear that, if an invention is decided to be filed for a patent, the invention should be first filed with United States Patent and Trademark Office and then can be filed in foreign countries only after 6 months have passed since the U.S. application is filed or a license of foreign application has been obtained from the Commissioner of USPTO. (Usually, this license is issued with a notice of Serial No. for patent application).

If the intellectual property is the manufacture knowhow or software (not a subject for a patent), such intellectual property is often transmitted to supervisors, colleagues, the intellectual property managers who are not U.S. citizens, or to Japanese parent company as a part of the day-to-day business activities. In these cases, such transmission should clearly observe the rules such as EAR.

In view of the above, a U.S. subsidiary should establish a concrete action program as the internal regulations for observance of EAR and ITAR (such as obtaining the written assurance for GTDR in advance, making the list of technology

likely to require a VL in advance and causing the creator or a U.S. legal counsel to determine if a VL is needed and applying for the license depending on the need) and make them known to employees.

(5) Attached flow chart shows the procedure for determination related to the export control of technical information from the United States.

2-5. Practical Management of Intellectual Properties in a U.S. Subsidiary

When an invention is made or intellectual creative activity is carried out at a foreign subsidiary, procedures for protection of rights should be taken immediately for these results. In order to smoothly carry out the procedures as the routine business, the company policy should be made clear, the management and procedural system established, and the internal rules made thoroughly known to employees in order that those who are creators would cooperate with the company. Practical matters which should be considered for the intellectual property management for foreign subsidiaries are discussed below.

(1) Compensation for Inventors in Foreign Subsidiaries

① Compensation for invention

Incentives for intellectual creativeness are important to encourage researchers and engineers to become the motivating force of local developments irrespective of the mode of management. Under the centralized management by the parent company, as rights belong to the parent company and the morale of the subsidiary employees tend to deteriorate, it is necessary to keep the incentive for inventors high. Monetary or non-monetary compensations are conceivable as the incentives, the latter being honorable mentions and reflections on the merit rating for his/her promotion.

In the United States, there is no statutory mandate to compensate inventors. On the contrary, it is in the Japan Patent Code, (Japanese Patent Code Section 35), so that it is up to corporations to pay monetary compensation to the inventor who assigns his/her invention. According to

Mr. Savitsky's survey of 115 U.S. corporations including PIPA members who responded, about half pay monetary compensations, 80% of which consider the monetary compensation as the incentive for R&D. (See: T.R. Savitsky; "Management of Employee Inventions", Proceedings of PIPA Niigata Conference). It is difficult, however, to determine whether the monetary compensation is an effective means for the incentive. About 20% of the corporations making monetary compensations seem to think that the monetary compensation and incentive are irrelevant to each other.

On the other hand, the Japanese Patent Code imposes payment of compensation to the inventor for employee invention by Article 35-3, and 90% of Japan's PIPA member corporations has the system to compensate for employee inventions at the time of filing, 80% at the time of registration, and 70% during the time the patent was used for their products. (See: Kishi, Y. et al; "General View of Intellectual Property Law Department in Japanese PIPA Member Companies - Its Organization & Function", Proceedings of PIPA Niigata Conference).

Many Japanese corporations tend to introduce their own management system to their U.S. subsidiaries without modification, and have established or are going to establish the compensation system. Hardly any U.S. subsidiaries seem to have the system of compensation for using the patents. In view of possible litigations against employers over fairness of management, prudence is recommended for introducing the monetary compensation system.

② Compensation for Software

When a patent application is filed for an idea contained in software, the creator may be compensated under the inventor compensation system. If the idea is to be protected by a copyright alone, the compensation therefor needs to be considered carefully.

Under the Japanese Copyright Code, the works made by employees automatically belong to the employer as the works made for hire (Article 15 of the Copyright Code), and there

is no obligation to compensate the employee. There arises a difference in legal obligation to compensate depending on whether the work of software is protected by the patent or the copyright. In order to compromise the difference and to compensate employees fairly for their creative activities, some Japanese companies have the internal system for asking employees to report software created by them and to reward them for creativeness.

Similarly, the U.S. Copyright Code does not provide for obligatory compensation, and dissatisfaction regarding differences of compensation among employees is apprehended if a system for compensating only for patents is established.

The local situation should be carefully studied before establishing a system of compensation in a U.S. subsidiary with a particularl emphasis on the incentive to inventors and creators.

(2) Evaluation and Management of Intellectual Properties in Foreign Subsidiaries

Under the centralized management system, inventions generated in foreign subsidiaries are assigned to and controlled by the parent company. It should be considered that what kind of a function should the subsidiary be given in evaluating invention and filing application, and managing intellectual proper. Management system should be improved and changed according to the growth of the subsidiary concerned. A compliance program for various legal restrictions as discussed in Section 2-4 should also be considered.

Following are the several examples of the local management which are designed for managing intellectual property that have cleared these legal restrictions.

① In the stage where the local developments are small scaled and not much results are expected of the developments, those in charge are dispatched by the parent company for practical management with the help of a local legal counsel.

② There is a system of managing intellectual properties by stationing a staff in a foreign subsidiary. Under this system, the policy of the parent company can be dessiminated thoroughly and relevant legal information can be collected locally.

③ In the stage where the local developments have become full scaled, local experts may be hired to attend to the day-to-day business in addition to the manager. This requires considerable expenses.

Under the decentralized system where the invention accrued in the subsidiary belongs to the subsidiary, matters that affect the entire group such as abandoning or licensing rights are generally determined by following the parent company's uniform policy. It is preferable to establish a system for coordinating opinions of the group and the policy for licensing the subsidiary's rights to third parties.

Points to be noted in managing intellectual properties other than inventions that have accrued in a U.S. subsidiary are summarized below.

A local counsel should be consulted regarding the employment contract which includes a provision to prohibit working for a competitor after retirement in an attempt to protect the trade secrets such as important knowhow, since this may be criticized as violating the freedom of the choice of occupation. When such provision is to be included, it is necessary to consider the term of prohibition and compensation for non-work. If an employee assures by a written agreement not to disclose any confidential information in his/her possession to his/her new employer, he/she cannot be prevented from working for a competitor. In any management system, these points should be considered in concluding an employment contract.

Trademarks and service marks are usually managed centrally by the parent company, but product trademarks used in local sales sometimes belong to the subsidiary company. Through guidance to the subsidiary to optimumly use the trademark and collect materials that can be used as

evidences of actual use is recommended. It should also be noted that in the United States even after joining the Berne Convention the copyright indication effectively opposes the plea of goodwilled use by the defendant and that copyright registration is a requisite for litigations regarding the works made by the subsidiary. When adopting the centralized management by the parent company, guidance should be given to subsidiaries for appropriate copyright indications.

(3) Filing Procedures

The result of development at a subsidiary is subject to the unified policy of the parent company under the centralized management, to the subsidiary's policy, under the decentralized management, and to either party's policy under the case-by-case management.

In actually filing applications, various legal restrictions in the United States as discussed in § 2-4 should be considered. If the parent company is to evaluate inventions before filing, the routine procedure for pre-filing evaluation should be established to observe these rules.

Following points should particularly be taken into consideration for smooth filing procedures.

① Inventors' obligatory cooperation regarding the specification and subsequent procedures should be defined. This should extend to post-retirement cooperation as the inventor's declaration is occasionally needed in the latter stage of patent prosecution.

② As the United States adopts "the first-to-invent" principle, the employment contract should require employees to record laboratory notebook in order to establish the date of conception and reduction to practice of the invention.

Software should preferably be protected by patent which is the right to absolutely exclude others so long as it contains an idea. It is difficult to judge up to what scope such an idea is protectable by a patent. Even under the decentralized management where the results of development

belong to the subsidiary, the parent company is recommended to assume the unified policy for software protection for the entire group's intellectual property management.

(4) Responsibility Sharing in Case of Disputes with Third Parties

When a foreign subsidiary manufactures/sells products or conducts R&D activities, third parties may issue warnings or institute a litigation for patent infringement against the subsidiary. It should be determined in advance whether the parent company or the subsidiary is responsible to resolve the problem.

Responsibility sharing for such disputes may be performed according to the three forms of management as discussed in § 2-2.

① Centralized management: Patent infringement matters at the subsidiary are to be resolved at the parent company's cost and responsibility.

② Decentralized management: Patent infringement matters at the subsidiary are to be resolved at the subsidiary's cost and responsibility.

③ Case-by-case management: The matters related to independent business of the subsidiary are to be resolved by the subsidiary, and those related to the products developed, manufactured or sold under the consignment from the parent company are to be resolved by the parent company.

When the subsidiary's capabilities to resolve disputes and pay for damages are considered, it is clear that uniform application of these general rules does not necessarily achieve advantageous solutions. This is particularly true for the cases where the subsidiary is heavily dependent on the parent company and their capacities for intellectual property management and dispute resolution are rather low. Full support by the parent company is essential in such cases.

Advance patent searches are essential for technology development for both parent company and its subsidiary to

avoid infringing third party patents. To prevent possible disputes, prudence is recommended when asking or being asked to enter a patent assurance agreement with a third party.

3. Intellectual-property Licensing and Assignment between a Parent Company and Its Foreign Subsidiary

Irrespective of the types of the intellectual-property management, there must be the situations in which an owner of an intellectual-property is different from a user of it, so that licensing or assignment of intellectual property between the two parties is necessary. An international taxation and a licensor's tort liability, inter alia, are likely to be the most important issues arising from the licensing or assignment of intellectual property between parent company and its subsidiary.

3-1. Issues of International Taxation

Money compensation for license or assignment of intellectual property, such as royalty or lump-sum payment, may be agreed easily and without trouble between parent-subsidiary companies because of the special relation between them. In some cases it might be agreed arbitrarily. (The phrase "money compensation for IP" is used hereinafter in order to refer the money compensation for license or assignment of intellectual property, such as royalty or lump-sum payment because consideration for a license and consideration for an assignment of intellectual property can be discussed as substantially the same in this section.)

A tax authority usually has a power to impose tax only on a corporation which is under its jurisdiction, so that two companies belonging to a parent-subsidiary corporate group settled in the different jurisdiction are assessed tax by different tax authorities. Also, a money compensation for IP affects substantially a company's gross profit which is taxable. Thus, a corporation and its controlled tax authority tend to have different opinions regarding a money compensation for IP.

International taxation systems regarding the intellectual-property licensing and assignments are discussed below in view of the U.S. - Japan Tax Convention and transfer pricing taxation system.

(1) The Tax Convention and Income Tax Withheld at Source

Many countries have a system of imposing taxes on total income of their domestic corporation irrespective of countries where the income has accrued. On the other hand, the tax authority of the country where the payer exists withholds income tax at source on the money compensation for intellectual property.

If there would be no adjustment of tax operation between tax authorities of different countries, the aforesaid two principles would be applied to the same transaction. Namely, the tax authority of the country where the payer exists and the authority where receiving corporation is incorporated would impose tax on the money compensation of the same transaction of intellectual property, so that an international double taxation would happen.

To avoid such double taxation, many countries provide some sort of deduction of all or part of the foreign taxes imposed on incomes generated outside the country from the amount of income tax in the country. In Japan, a corporation may deduct an amount of a foreign tax withheld outside Japan on its profit from its final income tax up to a certain limit. (Article 69 of the Corporation Tax Code). This is called a foreign tax credit system.

Under the current practice, IRS's tax certificate for 10% tax withheld in the United States on the amount which is a money compensation of intellectual property paid by a U.S. subsidiary is used as a part of the application forms to the Japanese ahtority for crediting foreign taxes by the Japanese parent company under the U.S. - Japan Tax Convention.

If a parent company has paid reasonable development expenses for the intellectual property generated in its subsidiary, the intellectual property can be regarded as belonging to the parent company without any problems in view of the international taxation. If a parent company, however, did not pay enough development costs and transferred the resulting rights to itself without

reasonable consideration, the parent company would be considered to have failed to declare the taxable income, and the subsidiary would be considered to have made a gift. (See: Nikkei Sangyo Shimbun dated May 31, 1991 "Nippon Unisys - value added portion is deemed a joint property - a compromise reached on additional tax".)

(2) Transfer Pricing Taxation System

2-i)

Transfer pricing taxation system can be understood as a means that a tax authority secures the right of taxation imposing on income acquired by corporations engaged in business in the authority's jurisdiction. Such tax is imposed typically on the case where a parent company sells products at unreasonably low prices to its subsidiary in a country with light tax rate, thereby the parent company passes on the profits to the subsidiary and evades the heavier tax rate of the country in which the parent company is located. In this case although the subsidiary pays income tax to the tax authority of its jurisdiction, as a result, the parent-subsidiary corporate group evades the heavier tax rate in view of the group as a whole. Along with many countries, Japan (Article 66-5 of the Code on Special Taxation Measure) and the United States (Section 482 of Internal Revenue Code) provide such transfer pricing taxation system.

The Japanese system is applicable to a transaction between corporations having the relationship of a controlling party and a controlled party in substance as well as the capital relationship and one of the corporations is located outside Japan. If the price for the transaction is below or above the arm's length price, the tax authority deems that said transaction was held at the arm's length price, and it may allocate profit properly to the two companies. The comparable uncontrolled price method, the resale price method, and the cost plus method are used to determine the arm's length price.

The U.S. tax system on transfer prices is, on the other

hand, applicable to transactions between corporate groups which substantially have the controller the controlled relationship. The system is also applicable to the transaction between domestic corporations within the U.S. as well as the transaction between foreign and domestic corporations. In order to calculate the corporate income accurately, IRS is authorized to allocate the total income, deductions, etc. among members of the group. The comparable uncontrolled price method, the resale price method, the cost plus method, etc. are provided to determine the arm's length prices in the order mentioned here as concerning applicability.

Under the current transfer pricing taxation system, the tax authorities calculate true income of a corporaiton based on the prices at which similar transactions between independent companies are carried out (arm's length price), and determine the tax amount based on the income thus calculated. As a result, the corporate group as a whole may be imposed duplicate taxes, and the subject group may cause the governments of the two relevant countries to open discussion and cause the tax authority of one country to return the money to the corporation of the other country (relative adjustment) (e.g. Article 25, U.S. - Japan Tax Convention).

The transfer pricing taxation system is applicable to the case where the income is transferred through a business deal within the group. Its application is not affected whether the tax payer intended to avoid taxes or not.

2-ii)

The transfer pricing taxation system is applicable not only to the sale of products but also to license or assignment, etc. of intellectual properties. The United States clearly set forth this point on the so-called super royalty provision (See: Section 482-2 of the Internal Revenue Code of 1986) that "in the case of any transfer or license of intangible property, the income with respect to such transfer or license should be commensurate with the

income attributable to the intangible asset." Also in Japan, there is no doubt that the transfer pricing taxation system is applicable to the transfer of intellectual property.

2-iii)

The theory and rationale of transfer pricing taxation system is clear as above outlined, but its practice would cause us trouble. In order to reasonably operate the system, an arm's length price for a paticular transaction should be determined. It is quite rare that an appropriate intellectual property transaction can be found in order to estimate or compare of an arm's length price to a paticular transaction between parent-subsidiary group.

Neigher Japan's Corporate Tax Code or Income Tax Code sets forth how to evaluate intellectual properties. The only clue which is available is a comparison in a business market. We understand that Japan's National Taxation Agency is currently investigating ways of determining appropriate prices for the intellectual-property transaction.

In the United States, "Section 482 White Paper" (A Study on Intercompany Pricing) published by Department of the Treasury and IRS in October, 1988 proposed:

① some new methods for calculating arm's length price for license or assignment of intellectual property; and

② revision of royalty rate, etc. for taxation purpose after intellectual-property licensing or transfer has taken place, if important changes occured in the product's market shares, etc.

The subsequent study of IRS's movement could not be done due to the paucity of data and materials.

3-2. License Agreement with U.S. Subsidiary and Product Liability of the Parent Company

Another issue arising from the intellectual property licenses from a parent company to its subsidiary is the degree of responsibility assumed by the parent company as a licensor regarding tort liability by the subsidiary. A typical issue

concerns the product liability which is discussed below.

(1) Product Liability

When a defect in a product causes damage to a third party's life, body or property, the party who caused such a defect is held responsible for damages. This is called product liability.

Manufacturers of a defective product were held responsible for damages caused by the defect under the principle of general responsibility for torts or under the contract.

Sophisticated science technology makes it difficult for the suffering party without knowledge of such technology to prove the negligence of the offender, a requirement for holding someone responsible for tort. Furthermore, complex distribution routes of contemporary age cause the direct contractual relation between a manufacturer and a consumer to be lost. And thus pursuit of the contractual responsibility falls into difficulty.

In 1960s, the legal theories were formed which aim at protecting vulnerable consumers from dangerous products and passing these losses on to the manufacturers who profit from mass production and mass consumption of the products.

(2) Strict Liability Theory

Since the concept of product liability appeared to lessen the difficulty of burden of proof for the consumers, the requirements for the liability had to be established toward the direction that proof of negligence was not necessary. In lieu of the manufacturer's carelessness or negligence which cannot be proved easily, the objective property or defect of a product became the requirement for holding the manufacturer responsible because it is easier to prove the latter. This is the strict liability theory. As a result of many decisions bringing about absolute liabilty which does not require proof of negligence, the strict liability came to be defined in Section 402-A of the Restatement (Second) of Torts.

(3) Who Is Liable in Strict Liability

Manufacturers are primarily responsible for their products, but other parties can also be held responsible. Since the basis for liabilities resides in "the defect" of a product, to hold responsible a party who participated in making "defect in a product" and who is in a position to prevent damages accruing from such risks even if the party is not a manufacturer concurs with the intent of consumer protection. U.S. decisions have imposed strict responsibility on the lessor (McClafin v. Bayshore Equipment Rental Co., 274 Cal. App. 2d 446, Cal. Rptr. 337 and others), the developer (Kriegler v. Eichler Homes, Inc., 269 Cal. App. 2d 224, 74 Cal. Rptr. 749 and others), the retailer (Vandermark v. Ford Motor Co., 61 Cal. 2d 256, 37 Cal. App. Rptr. 896, 391 P. 2d 168 and others), and the wholesaler/retail distributor (Barth v. B.F. Goodrich Tire Co., 265 Cal. App. 2d 228, 71 Cal. Rptr. 306 and others). Also the trademark licensor has become to be liable for defects in products since the decision was rendered in 1972 in the case of Kasel v. Remington Arms Co., 101 Cal. Rptr. 314, 24 Cal. App. 3d 711 (Ct. of App. 2nd Dist., 1972).

(4) Remington Case

The case concerns a claim for damages made against a U.S. corporation, Remington Arms Co. (Remington), by the plaintiff who was injured by explosion of a defective cartridge manufactured by Cartuchos Deportivos De Mexico, S.A. (CDM) 40% of which shares are held by Remington. Remington had been engaged in an extensive publicity campaign for these cartridges, and under a trademark license with CDM, it reserved a right to inspect, control and approve the quality of the product in respect of which the trademark was used. The same persons were acting as directors and officers for the two corporations.

The decision in this case adopted the "stream of commerce theory" as a ground for holding the trademark licensor responsible. So long as the trademark licensor can be held as an essential part of marketing group who placed

the defective product in the stream of commerce, it cannot be exempted of the strict liability. Whether it can be called an essential part or not is judged by such facts that Remington was in a position to control the product quality by being largely involved in the corporation which manufactured the defective product.

(5) License to a U.S. Subsidiary and the Product Liability

Based on the foregoing, we would now like to discuss the product liability in the case where a Japanese corporation establishes a subsidiary in the United States to engage in manufacture and sale of the product.

In the following cases, the parent company in Japan may be held responsible for the product.

① A Japanese parent company manufactures defective products and its U.S. subsidiary sells them;

② A U.S. subsidiary manufactures defective products and its Japanese parent company sells them in the United States; and

③ A U.S. subsidiary manufactures and sells defective products.

In ① and ②, the parent company will undoubtedly be held responsible under Uniform Product Liability Act and past decisions (even though the seller is not necessarily held responsible in all instances). The problem arises for ③ where the degree of contribution by the Japanese parent company is questioned. As for ③, we shall discuss the responsible party under a trademark license and a patent/knowhow license respectively.

i. U.S. Subsidiary is manufacturing and selling defective products under a trademark license

In the Remington case, there was a trademark license agreement between Remington and CDM, the Remington trademark was being used, and Remington had the authority to control the product quality under the agreement. These were held as the grounds for holding the parent company responsible. Even in 3 , if there was a trademark license agreement between the parent company and the subsidiary and the

former's trademark was being used in respect of the product and the former had the authority to control the product quality, it is likely that the Japanese parent company would be held responsible for products.

What if the trademark license agreement contained no provision for the quality? The parent company who is the licensor may be held responsible also in this case. City of Hartford v. Associated Construction Co. 384 A 2d 390 (Superior Ct. Conn. 1978) was a case where a provision for quality was made. The decision clearly recognized the strict liability with the trademark licensor under the Trademark Law.

Would the ratio of capital held by the parent company in the subsidiary affect the responsiblity of the parent company? As far as we can see, the responsibility of a trademark licensor is not affected by the ratio of licensee's shares held by the licensor. This is clear from the Hartford case which is held responsible a franchiser having no relations regarding capital with the manufacturer responsible.

ii. When a U.S. subsidiary manufactures/sells defective products under a patent/knowhow license

In the case of a trademark license, involvement in the stream of commerce can be regarded as having asked the control of the quality. Would the parent company which is the licensor of patent or knowhow be also held responsible for the licensed product?

If the stream of commerce theory was applied to the patent/knowhow license, the patent/knowhow licensor should be a link which placed the defective products in the stream. A simple patent/knowhow license agreement, however, is unlikely to give the licensee a control of the product quality as in the trademark license.

In our opinion, the patent/knowhow licensor is held responsible for defects in products only when the guarantee was made of the licensor's technology despite its inherent defect, when the product carried an indication that it used

the licensor's technology, and when the defective portion of the product was designed by the licensor. It would be difficult to affirm that the licensor is responsible under the mere patent/knowhow license so long as the licensee has a certain degree of freedom to design/manufacture/sell the products. Even under the name of consumer protection, it would be too excessive to hold responsible the party with very little contribution to the defective product.

When the parent company grants a patent/knowhow license to a subsidiary, the parent company is hardly likely to be held responsible for the product, if the license does not contain a provision for quality control of products manufactured/sold by the subsidiary. This also applies to licensing by the parent company to the subsidiary of patent/knowhow that were generated in the subsidiary company and owned by the parent company. In this case, the parent company is merely a holder of the right and its responsibility is further limited.

However, if the licensor could evade the strict responsibility by a simple manipulation of the license agreement which would otherwise be imposed if they themselves had manufactured the products using their own technology, judgement of unfairness may prevail. In this case, if it is postulated that the licensor and the licensee have an indivisible relation by forming a complex business entity by capital investment and other reasons thereby attaching more importance to the parent-subsidiary relation in distribution of the defective products, there may be instances where the parent company's principal responsibility cannot be denied.

There is a case where the licensor's product liability was disputed under the patent/knowhow license agreement (Alm v. Aluminum Co. of America 687 S.W. 2d 374, Tex. App. 1985), but there seems to be no judgement which held the licensor strictly liabile for being the licensor. (See: J. W. Ambrosius et al. "LICENSOR TORT LIABILITY IN U.S. LICENSING KNOWHOW AND PATENTS"; Proceedings of PIPA Tuscon

International Congress.) Our search failed to uncover similar judgement. If a court held a patent/knowhow licensor responsible for the product, such judgement would affect a great many corporations because such licenses currently assume an important part of the corporate activities, and we should watch the future direction with interest.

4. Conclusion

We have discussed some issues on the intellectual-property management at a U.S. subsidiary by a Japanese parent company. We hope that the paper may be useful for many companies advancing their global corporate activities.

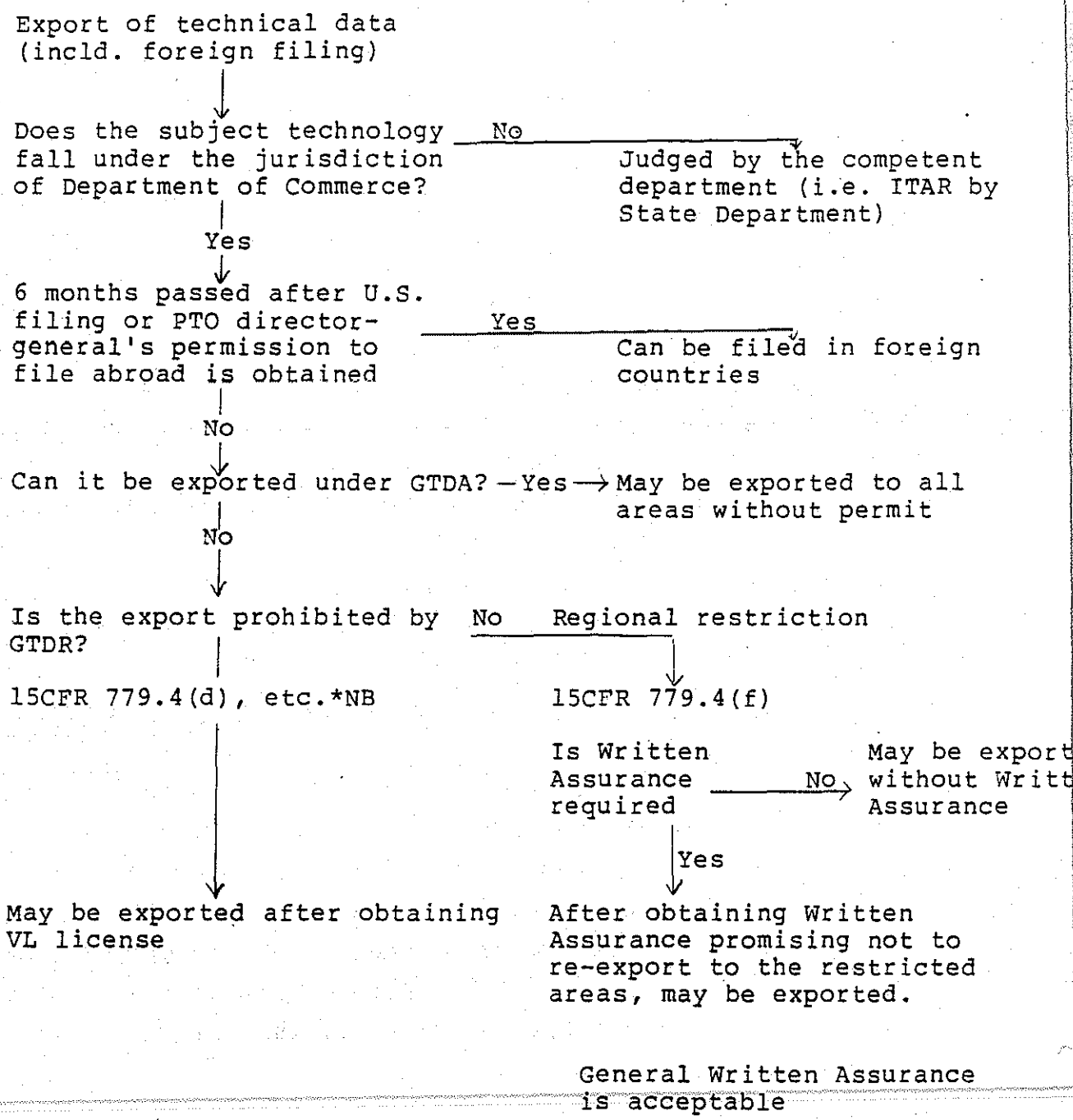
Globalization of Japanese corporations has just started as far as R&D are concerned, and the parent companies will lead the management for the time being. Our viewpoint undeniably focused on the management of subsidiaries by the parent companies. In order that Japanese corporations achieve their goal in globalization in its true sense of word, sufficient consideration should be given to the intellectual-property management so as to help their foreign subsidiaries to take roots in countries they are established.

We wish to acknowledge with thanks the kind guidance given by Mr. Shimizu, the Chairman of the Second Committee.

We wish to add that "R&D Globalization-Proposal to Management" a report published in September, 1990 by the R&D Globalization Specialist Committee of Japan Techno-Economics Society was most useful in pareparing this paper and thank Mr. K. Marumo, the Secretary General, who offered us the use of the report for this paper.

Exhibit

Flow chart for Export Regulations and Procedure of Selection



*NB: The determination here is most important in practice

(1) Title : Boundaries of Protection for Computer Programs

(2) Date : 10/91 (22nd, Rochester)

(3) Source:

1) Source : PIPA
2) Group : Japan
3) Committee : 2

(4) Authors:

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(5) Key words : Computer programs, software, idea, expression, copyright, patent, SSO, sequence, structure, organization

(6) Statutory Provisions

Japanese Copyright Law 2-1-10.2, 10-3-3, U.S. Copyright Law 102(a), German Copyright Law 2-1-1, EC Directive on the Protection of Computer Programs 1, 8, 5-3, 6

(7) Abstract:

Rapid progress in software development technology in recent years has enabled development of automatic computer program writing systems, thus, legal protection of computer programs is requested not only for their expressions but also for their ideas of how to proceed a given process and in what sequence. In keeping with such rapid progress in software development, clear-cut standards for protection of computer programs under patents and copyrights should be established. This paper discusses the current status of legal protection for computer programs in major countries, particularly, major U.S. decisions regarding the scope of program protection and views voiced in the U.S. and Japan regarding these decisions, it also analyzes the framework for patent and copyright protection, and proposes a practical guideline for legal protection of software to answer the practical needs based on the analysis.

I: Introduction

Research and development in computer systems has been remarkable in recent years as the focus shifts from large sized host computers to dispersed type work stations, and software, including computer programs, has become increasingly diversified. A recently developed system enables writing an optimum program automatically even if it is input in everyday language. Rather than the expressions used in the program, the idea and concepts of how to proceed with a certain process in a certain flow are regarded as more important. Thus, protection by patent is being considered under a new light. As corporations and individuals consider today's copyright protection for software insufficient, the number of patent applications both in the United States and Japan has been increasing in the last few years due to the expanded protection by patents. In the case of a work created by machine translation using artificial intelligence, the boundary between the work made by a machine and that created by a human is indistinct, this further complicates the standards for protection of rights. That copyright protection should be given to computer programs per se is irrefutably recognized in industrialized countries, but it seems there different opinions regarding the scope of copyright protection for software even in the United States which represents 70% of the world's software market. Legal protection has not kept up with the rapid progress

in software developing technology. Software protection by law in Japan, the U.S., Germany and E.C. is discussed, and a practical guideline of protection is proposed based on the present study.

II: Current Status of Software Protection in Japan

1. Copyright

Under the Copyright Law, a copyrightable computer program is defined as "being expressed as a combination of instructions to run a computer and obtain a result"(Article 2-1-10.2). A source program written in a program language readable by a human clearly falls under this category. However, there is no legal provision which clearly stipulates whether or not an object program which is in a machine language falls under this definition. In Taito v. ING Enterprise, the Tokyo District Court found that an object program is a result of mechanical conversion of a source program which is a copyrighted material and that the act of its duplication corresponds to reproducing the source program in a tangible form, thus offering practical protection.

As we reviewed in our 1990 Report, in the Systems Science Case (Tokyo High Court, June 20, 1989), the court held that the infringement by a later program of a prior program's copyright is recognized only "when the prior copyrighted program contains, in a combination of instructions, a portion of which creativity is recognizable, and the combination of instructions of the later program is similar to said creative portion of the prior program". The court further stated that "the sequence of program processing (or flow processing) per se is an algorithm or a "solution" as defined in Article 10-3-3 of the Copyright Law, which is the portion not copyrightable as the authored work, and therefore is irrelevant to the creativeness of the program". A combination of instructions is the program expression per se and is entitled to protection under the Copyright Law, but the sequence of program processing (flow processing) per se is regarded to fall outside the realm of protection. There are no other judgements in Japan defining the scope of protection for expression.

2. Patent

The Guideline for proposed examination proceedings of March 1988 of the Japanese Patent Office, "Proposed Examination Proceeding of Computer-Software-Related Inventions" recognizes patentability of a computer-software-related invention in which (1) it substantially utilizes a computer, if (2) it is a particular and independent device, or if (3) the software utilizes a specific characteristics of structure of the hardware resource, or if (4) the cause-effect relationship in method (which has the regularity used to obtain specific results in a program) relies on laws of nature (regularity) as defined in Article 2. The Patent Office is currently reviewing the software examination standard for revision scheduled in or after 1992. The revision is expected to expand software protection in keeping with the spirit of harmonization among Europe, the U.S., and Japan. It will be interesting to see how the examination standard for inventions using the laws of nature (regularity) will be revised.

Patent applications for software are increasing rapidly based on the thinking that the idea of software per se should be protected under the Patent Law. A software house called "Yes Corporation" sued 11 companies and one individual, including major manufacturers, in March 1991 for infringement of their patent entitled "Device for Finance and Inventory Management". We are watching with interest the development of litigation. This case appears to have triggered the increase of applications for the sequence of job processing stored in a program recording medium (such as a floppy disc) by software makers who develop programs and sell them in floppy discs as the final products.

III: Status of Software Protection in the United States

1. Copyright

Regarding software, the U.S. Copyright and Patent Laws have no major difference to the Japanese counterparts. The U.S. Copyright stipulates in Section 102(a) that "copyright protection subsists..., in original works of authorship fixed in any tangible medium of expression, now known or later developed ...",

and in Section 102(b) that "In no case does copyright protection extend to any idea, procedure, system, method of operation, concept, principle, or discovery ...".

2. Patent

The United States Patent & Trademark Office published on September 5, 1989, "Guideline on the subject of the patentability of mathematical algorithms and computer programs (Computer Guideline)", and described a two-part test. This test examines (1) if a claim describes a mathematical algorithm directly or indirectly, and (2) if the mathematical algorithm is applied to a physical element or a process step by some method. In other words, if a mathematical algorithm was present in the claims and was applied to a physical element or a process step by some method, it is entitled to be examined for patent protection. A computer program is protected by a patent if it is considered a process to be executed by a computer, as long as it is not a mathematical algorithm per se.

3. Discussion of decisions on borderline cases of idea and expression

That the copyright law protects expression, not idea, is irrefutable in every country. But there are no decisions, other than the above-mentioned System Science case, in Japan that teach the scope of protection in a copyrighted work in case of a computer program. We, therefore, studied U.S. copyright decisions in detail. Based on our search using a data base of decisions, we reviewed the decisions to find those that teach that the scope of copyright protection on program extends beyond the literal expression of the program to the sequence of processing (flow of processing), and further to the program execution for the output on display (look and feel), and we found two types of decisions. The representative examples are the Whelan case and the Plains Cotton case.

3.1. Whelan Associates, Inc. v. Jaslow Dental Lab, Inc.

As a representative example of the first type of decisions, Whelan Associates, Inc. v. Jaslow Dental Lab, Inc., 230 USPQ 481 (3rd Cir. C., 8/4/86) held that the copyright protection for a program extends to structure, sequence, and organization (SSO) beyond the literal code of the program.[1]

The court applied a clear-cut test by drawing the line that the underlying purpose of a program is its idea and all else is expression.

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[1] The defendant, Jaslow (dental device manufacturer), asked Strohl, Inc. to develop a program, Dentalab, for use with the IBM series one (the program was written in EDL language). The plaintiff, Whelan, was owner of one half of the corporate stock of Strohl, and wrote the Dentalab program. She left Strohl to form her own business, Whelan Associates, Inc., acquired Strohl's copyright interest for Dentalab, and then registered the copyright in her company's name. Whelan and Jaslow entered a sales agency agreement for the sale of Dentalab by Jaslow. Without the plaintiff's knowledge, the defendant obtained the source code of Dentalab and re-wrote it in a language (BASIC) different than that of the original program, but with the same operation, output format and file for use with IBM PC. The new program was named Dentcom and was sold as a new version of Dentalab by a sales company established by the defendant. The plaintiff charged the defendant with copyright infringement. The Court of Appeals, Third Circuit supported the district court's decision by holding that the copyright protection of a program extends to SSO beyond the literal code of the program and therefore the two programs are similar to each other: the appeal court recognized infringement of the defendant's program because of the substantial similarity of the program and access to the source code, and ordered the defendant to pay for damages and refrain from distribution of Dentcom.

The Court of Appeals followed a fairly traditional copyright analysis, reciting the usual comments that copyright protection is for expression, not idea, and paid it's due respect to Baker v. Selden. The same Court of Appeals reached a noteworthy conclusion using the Baker analysis (230 USPQ 490):

> "The Supreme Court's test in Baker v. Selden suggests a way to distinguish idea from expression. Just as Baker v. Selden focused on the end sought to be achieved by Selden's book, the line between idea and expression may be drawn with reference to the end sought by the work in question. In other words, the purpose or function of a utilitarian work would be the work's idea, and everything that is not necessary to that purpose of function would be part of the expression of the idea... Where there are various means of achieving the desired purpose, then the particular mean chosen is not necessary to the purpose; hence, there is expression, not idea ..."

3.2. Other decisions that have adopted the standpoint of the Whelan case.

The Whelan v. Jaslow decision should be evaluated in that it held that the expression of a program to be protected extends to SSO beyond the literal codes, thus expanding the scope of protection toward idea, although it said that SSO had similar meanings because there are many decisions citing this one. The court's view in the Whelan case that if there were various means to achieve the object of a program, then these means are regarded as the expression to be protected appears to have caused different opinions. The decisions discussed below are typical examples which adopted the Whelan standpoint and offered various interpretations of the Whelan decision.

(1) Decisions with excessively magnified protection

A representative example is Pearl Systems, Inc. v. Competition Electronics, Inc., 8 USPQ 2d 1520, (Florida S.D.C. 7/15/88) regarding a program of a shot timer device used for competitive pistol shooting. The district court held "the par time entry subroutine was designed to provide a method for the user to set a par time. That is the idea. The shot review subroutine was designed to allow the user to review the shots he or she has fired and to learn of the time that elapsed between each shot. That is also an idea. The court held that the subroutines themselves are expression of those ideas and are therefore protectable under the Copyright law.

(2) Decisions with magnified protection

The following decisions hold that the scope of copyright protection for programs extends to user interface beyond literal codes and SSO by citing the Whelan case: Broderbund Software Inc. and Pixellite Software v. Unison World, Inc., 231 USPQ 700 (N.D. CA 10/8/86), Telemarketing Resources v. Symantec

Corporation, 12 USPQ 2d 1991 (N.D. CA 9/6/89),[2] Lotus Development Corp. v. Paperback Software Intl. and Stephenson Software, Ltd. (Mass. D.C. 6/28/90).[3]

(3) Decisions which indicated a certain limit

A decision rendered in Manufactures Technologies, Inc. v. CAMS, Inc. 10 USPQ 2d 1321 (D. CON 1/30/89) rejected that the scope of protection extends to user interface beyond SSO for a computer program. While it held that the copyright extends to SSO, the Court pointed out an error in the Broderbund case. The court in the latter case relied on the Whelan case by erroneously interpreting Whelan's court's holding that "screen display is useful only as direct and presumptive evidence in judging copying of the underlying program" to mean that the copyright protection for SSO is treated equal to protection of screen outputs.

Another decision is Johnson Controls Inc. v. Phoenix Control Systems Inc. (Ninth Cir. 10/3/89). The Ninth Circuit court stated, "Where expression is indispensable in the treatment of an idea, it is protected only against verbatim or virtually identical copying, but decline to reverse the district court's finding that the structure, sequence, and organization is protectable expression.

3.3. Decision that took the opposing stand of the Whelan Case

(1) Decision that denied SSO

A typical decision that denied the Whelan Case is Plains Cotton Cooperative Association of Lubbock v. Goodpasture Computer

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[2]Copyright protection was held to extend to the user interface and the entire structure and organization of the program including voice image display "look and feel" (citing the Whelan Case). Several functions to commence the outline and end the program were, however, held inherent to the idea in computer outline program and not copyrightable.

[3]Copyright protection of the program was held to extend not only to the literal portion of the program but to SSO and user interface such as screen displays, and the defendant was found to have copied the two line move cursor menu and the menu commands in Lotus 1-2-3 which are the factors to be protected by copyright.

Service Inc. 1 USPQ 2d 1635 Fifth Cir. C. (1/21/87).[4] It denied the Whelan Case and held that sequence and organization are ideas when the market factors play an important role in determining the program sequence and organization and therefore do not infringe the copyright.

According to the Plains court, in the level system of computer software design, the verbatim code "the line-by-line program design" is at the lowest level, and the input format of the Synercom case comes at the next lowest level, followed by the functional design. (The Plains court held that the input format

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[4]The defendant, Plains Cotton, developed a computerized cotton marketing program, "Telcot", that enabled a cotton producer to track a bale of cotton from the gin to a seller and electronically account for the sale. Former programmer employees of Plains worked with CXS (under licence from Plains) to develop a personal computer based version of Telcot. After their intermediate employer, CXS, experienced financial difficulties, the former Plains programmers took jobs with a Plains competitor. In a matter of weeks, these programmers had completed the design of a competing system called GEMS for personal computers for cotton exchange. Plains made a motion for a preliminary injunction on its copyright and trade secret claims, but their claims were dismissed. They appealed the case.

The Court of Appeals, Fifth Circuit held that the District Court's factual findings were not clearly erroneous, and then addressed the appellant's contention that the District Court's finding were incorrect as a matter of law because it applied the wrong legal standard. The Court of Appeals ultimately upheld the District Court's findings by stating that abstract concepts lacking concreteness of the literal code are ideas that are not copyrightable at all levels; it further stated that as long as the market factors are playing an important role in determining the sequence and organization of a cotton marketing program, the sequence and organization are ideas and therefore do not infringe the copyright, and that since there was no copying of the program, there was no illegal use of trade secret.

expresses a level which is more specific than the functional design and more general than the line-by-line program design.) It further held that protection is affordable to program design of literal code or the line-by-line design with less abstract character than the input format.

(2) Decision that held order and sequence are ideas

Another decision which cast a doubt on copyright protection of SSO is Synercom Technology Inc. v. University Computing Co. 199 USPQ. 537 (N.D. Tex. 8/24/78). This decision, rendered prior to the Whelan Case, marks a contrast with the Whelan case, and is cited by the Plains court. It held that the organization and sequence were ideas that are expressed and not the expressions. If ordering and sequencing is expression, what separable idea is expressed? It stated that the expression should be protected by copyright for the range between formative creation and the expression of the sequence and arrangement per se. It also held that the input formats are parts of the idea and not an appropriate subject for copyright protection.

Having examined the decisions rendered by the U.S. court, the Court of Appeals, 3rd Cir. recognized protection for things that are more concrete than the object of a program in the Whelan case, and the Court of Appeals, 5th Cir. denied protection for concepts that are more abstract than line-by-line program design in the Plains case.

We shall watch future decisions with interest to see which standpoint other circuit courts would take.

4. Other Comments

Various comments have been made in prints and academic meetings regarding the degree of expressions to be protected by copyright. In addition to the decisions discussed above, we would like to introduce interesting comments made in OTA Report Computer Software & Intellectual Property (background paper) 1990, where we can find various opinions in the U.S.

(1) In February, 1989, various opinions were presented at a conference held at Arizona State University College of Law, and the conferees formed a consensus on several points.

1. Courts will have to adapt traditional copyright principles to a new and different technology.
2. SSO is unhelpful to describe expressive elements of programs. It does not distinguish expressions from processes or procedures. Moreover, computer programs are functional works, thus technological constraints on using them limits the scope of available protection.
3. Courts have extended copyright protection beyond the exact text of a work.

(2) Legal Protection by Computer Software: Discussion over Copyrightabilty

1. There is considerable disagreement over what features of a computer program are copyrightable.
2. The distinction between idea and expression can be very tricky to make, even for some traditional literary works like books.
3. For software, which is intrinsically functional, idea and expression are closely interwoven.
4. In practice, it is extremely difficult to separate which elements of a program are the expression and which are the underlying ideas.
5. There is substantial disagreement among legal scholars and software developers as to whether copyrights should protect only against literal or near literal copying, SSO, and user interface.

IV: Software Protection in Germany

The 1985 amendment to German copyright law clearly indicated that the programs are to be protected under Article 2-1-1 that "Works of literature, academia, and fine art include the works of language such as programs intended for data processing".

Prior to the amendment in 1985, the Supreme Court of West Germany affirmed the principle of appropriateness of copyright

protection of a program in the statement of reason given for a decision. The decision concerned a case where the plaintiff, a cash collection firm, asked one of the defendants to prepare a program for their use, and the defendant attempted to sell the program or its improved version to others. the Supreme Court protected the plaintiff by citing the contractual right of demand under the license agreement and gave the following noteworthy view regarding the appropriateness of program protection under the Copyright law.

"In order to affirm the appropriateness of program protection under the Copyright Law, the creative feature of the program must be examined if it is of the sufficient height. The decision is rendered by (1) general comparison of spiritual/creative impressions of a concrete form with existing forms, and when the creative feature is confirmed, (2) the program is compared with a work of an average programmer to see if it is clearly superior to an average capacity in selection of instructions, collection, arrangement, and classification of information. The lower limit of appropriateness of copyright protection lies in affirming these questions."

As mentioned above, the Supreme Court affirms, as a rule, appropriateness of copyright protection of computer programs, but appears to reach a reasonable solution by restraining excessive protection by copyright by requiring "high degree of creativity" in substance.

V: Software Protection in EC

In 1993, the EC is scheduled to establish the following copyright protection for computer programs. With its market integration in 1992 approaching, the EC council of ministers adopted on May 14, 1991, the "Directive on the Protection of Computer Programs". Twelve member states must amend the domestic laws along the directive by January 1, 1993. The directive is summarized below.

(1) Computer programs are to be protected by copyright as literary works, and the protection shall apply to the expression

in any form of a computer. Ideas and principles which underlie any element of a computer program are not protected by copyright (Article 1).

(2) The term of protection is to be for 50 years from publication for a work of a legal person in accordance with the Berne Convention (Article 8).

(3) As regards reverse engineering, a person having a reproduction of a program shall be entitled to observe, study or test the functioning of the program in order to determine the ideas and principles, limited to loading, displaying, running, and storing the program (Article 5-3). Regarding decompilation, reproduction of the code and translation of its form to obtain information necessary to achieve the inter-operability is regarded lawful (Article 6). These provisions are enforceable and not to be excluded by contract.

VI: Types of Software

Legal protection of software in various countries was discussed. Characteristics in the scope of protection by types of software are discussed below.

A software developer who is the unique creator (the earlier developer) wishes to obtain the widest possible protection for software which he/she has developed, whereas another software developer (the later developer) who wishes to develop software more superior than software developed by other companies, wishes that the protection given to other's software be as narrow as possible. The desired scope of legal protection for computer programs differs depending on the standpoint of social needs. The desired scope also appears to differ further depending whether the object of protection is the basic software, protocol, inter-operability, or the application software.

As shown in Table 1, computer programs are classified into three classes; basic programs, basic/common programs, and application programs. The features of the scope of protection for each class are discussed. The basic program is closer to

hardware and therefore the functions to be achieved by the program are limited with a lower degree of freedom in expression. Application software is independent of hardware, its functions are diversified to meet the user's demands, the program capacity is large and the degree of freedom of expression is also high. The basic/common program is positioned in between and has the interface function as well as the connector function with the application program.

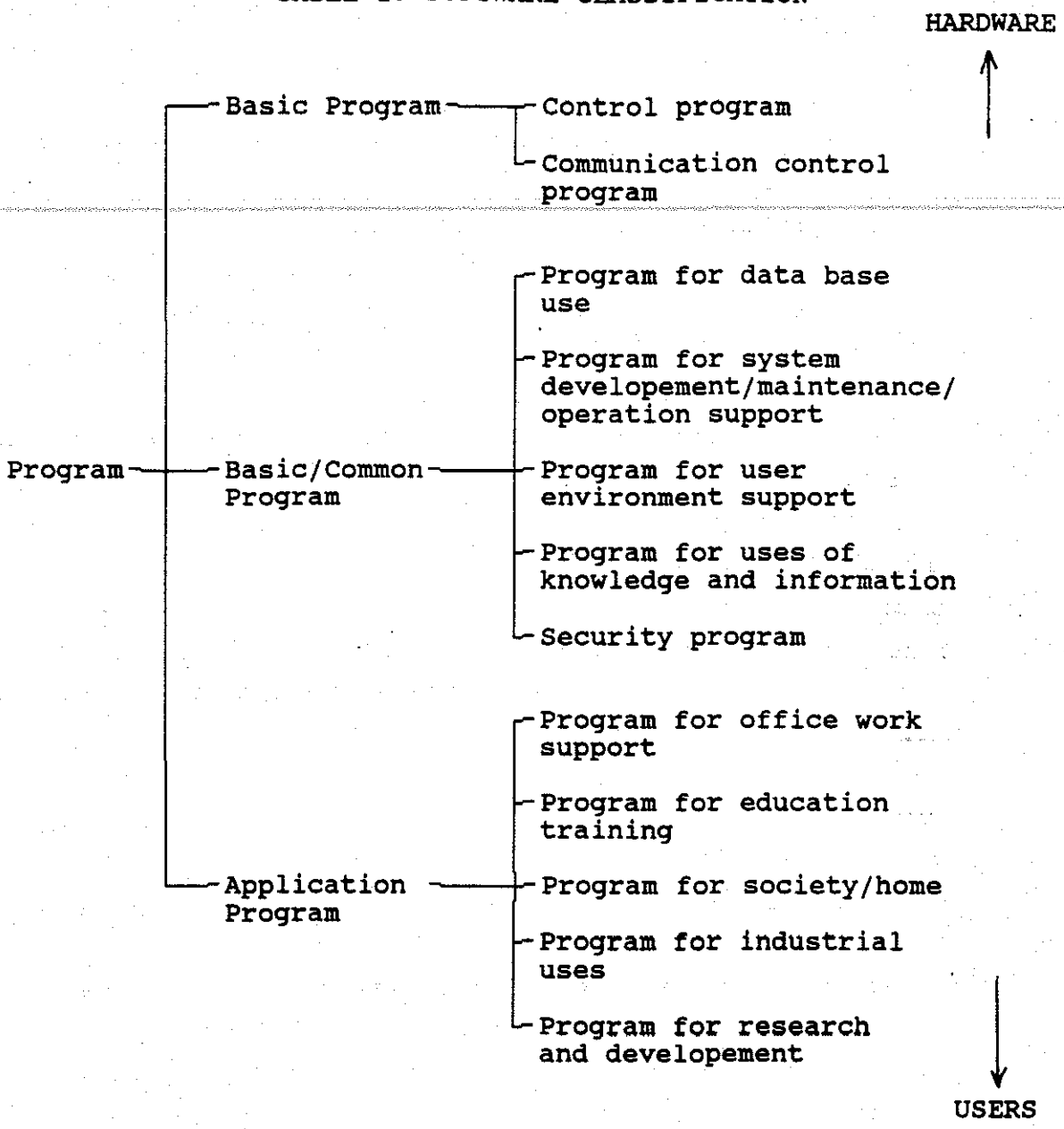
1. Basic Program

In the basic program, functions and input/output data of modules that are inside the program are easily disclosed outside. Rather, disclosure of such information appears to be characteristically the basis for the program value. The basic program has a small degree of freedom in expression and if one tried to develop a compatible OS, the later manufacturer is bound to come up with an OS with the same structure even without copying. In the case of a small program capacity control program, there is no choice for composition and therefore the copyright protection is hard to obtain, due to the merger theory.

2. Basic/Common Program

Similar to the basic program, there are higher possibilities for outside disclosure of the internal structure for the basic/common program because the application software also uses them commonly. There is a distance to hardware and because of a higher degree of freedom of development, it is different from the basic program. As is represented by the window environment, in the user environment support program, the visual image occupies an important part of the program value. The commercial value of user interface in this type of program often depends on the experience of the users, and when the latter maker wishes to develop a better user interface, the scope of copyright protection for the look and feel of the former maker's program presents an important problem for programs in this class.

TABLE 1: SOFTWARE CLASSIFICATION



Source: Business report on "Software development and future trends" March, 1991: Japan Machinery Federation Research Institute of Japan System Development pp. 18-19.

3. Application Programs

Further classifications appear feasible in addition to that shown in the table. Many U.S. decisions discussed in Chapter III address the programs of this category.

VII: Framework Analysis of Software Protection

1. Laws for software protection

Legal protection is available for computer software under the patent, copyright and trade secret laws. Their characteristics are discussed below.

a) Patent

*Protection of an idea is possible, providing an extensive range of protection for things.

*The description in the Scope of Claim clearly defines the scope of protection.

*Applications must be filed in each country, requiring complex procedures and enormous costs for obtaining rights. The burden is huge for individuals and small enterprises.

*Scope of protection obtained as a result of examination varies from country to country.

b) Copyright

*Most software is protected even if it does not meet the stringent standards of patent examination.

*Copyright accrues upon filing and does not require complex procedures and costs as patent (under the Berne Convention). This is a valuable means of protection for venture businesses and individuals without sufficient investment funds for intellectual property.

*Right can be exercised while enjoying trade secret.

c) Trade Secret

*Permanently protected so long as it is kept confidential.

*Continued protection is difficult for commercially available software.

In addition to the above, protection by contract to bind the parties is also available. How to uniquely rely on various laws that may be applied to software is important to software developers. The trend in recent years is to reinforce patent protection of software which is reflected in the increased number of patent applications in Japan and the U.S.

2. Study of legal systems for protection of application programs

(1) Decisions on infringement of program copyrights are mostly related to application programs for direct use by users. In infringement litigations involving the basic programs and basic/common programs discussed above, the scope of protection, standards and environment differ from those in application programs, and decisions that are different from the existing ones are expected. Accordingly, it seems that further complex discussions would be induced. A recently developed system enables writing an optimum program automatically even if it is input in everyday language. Rather than the expressions used in the program, the idea and concepts of how to proceed with a certain process in a certain flow are regarded as more important. Thus, protection by patent is being considered under a new light. We have therefore studied the combined roles of protection by patent and copyright.

(2) Figs. A through C show the frameworks of legal protection for software with respect to patent and copyright laws of Japan, U.S. and Germany. In these figures, the level of software specifications is plotted on the vertical axis by indicating (a) "the requirement specification" for software as a whole, (b) "general logic flow specification" for computer processing of the job flow, (c) "detailed logic flow specification" for specifying the detail logic or structure design, and (d) "code" for running the computer. The inventiveness under the patent law and the creativeness (originality in the U.S.) under the copyright law are plotted on the horizontal axis. Fig. D shows the synthesized framework for protection in three countries. These figures were prepared to show the result of our discussion. Further review

is warranted for accuracy of the content. Protection in various countries is discussed below by referring to the figures.

As shown in Fig. A, the scope of protection for copyrighted software is extremely large in the U.S. if the SSO theory discussed in the Whelan decision was to be followed, thereby creating duplicate protection in the areas protected by patent and copyright.

As shown in Fig. B, Germany has no problems of duplicate protection, but it apparently lacks an appropriate system of protection for creative works with low creativity.

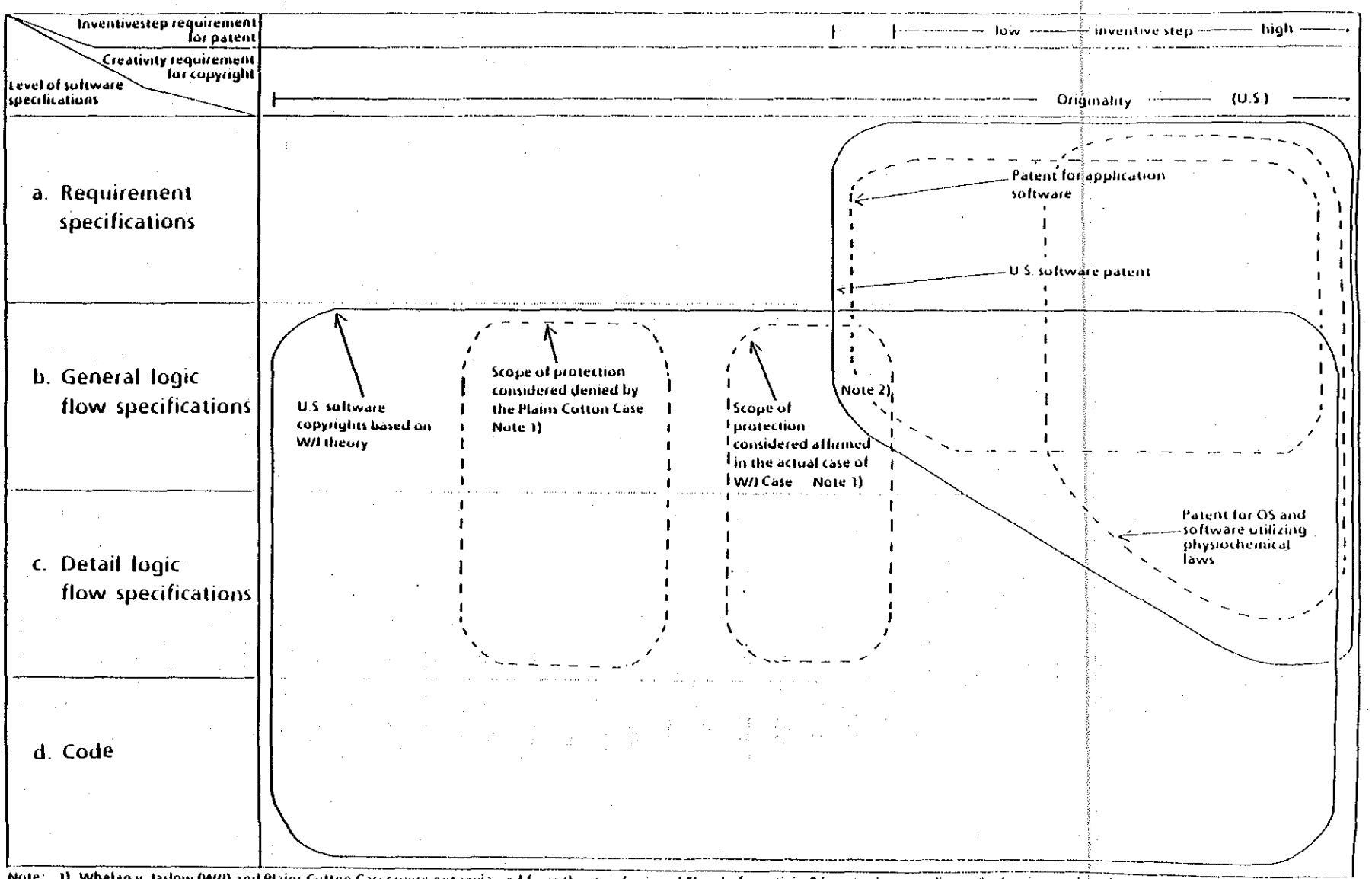
As shown in Fig. C, Japan has no problems of duplicate protection of software by patent and copyright. Appropriate legal protection is not available in the area of detailed logic flow specifications because of their lower inventiveness, thereby creating a void in protection of rights. If the detailed logic flow specifications were at the same level as the code level, protection by copyright will be available.

In Fig. D, protection in three countries is compared. Software protection by patent is available most extensively in the United States, and least in Germany. Examination of the actual status of patent registration reveals that Japan is somewhat closer to the United States. The standard of creativity for copyright protection is very high in Germany, and that in Japan appears to be somewhat higher than the standard of originality in the United States as is reflected in Tokyo High Court's decision in the System Science Case as described in Chapter II-1.

3. Protection of Subroutines

The Pearl System Case discussed in Chapter III-3.2 does not fall within the scope of protection by copyright shown in our flowchart. A module to achieve a certain function appears to fall subject to the requirement specifications mentioned in the chart although it does depend on how a subroutine is interpreted. We believe that protection of the idea and not the expression is more important for subroutines and that protection by a patent is more desirable because of their character.

Fig. A: Boundaries for Software Protection in U.S.



Note: 1) Whelan v. Jaslow (W/I) and Plains Cotton Cases were not reviewed from the standpoint of "level of creativity" in actual proceedings. Evaluation and positioning for the two cases in the table are based on the author's assumption.
2) Programs with less inventiveness than Whelan's program are actually issued as patents, and therefore this positional relation is cited.

Fig. B: Boundaries for Software Protection in Germany

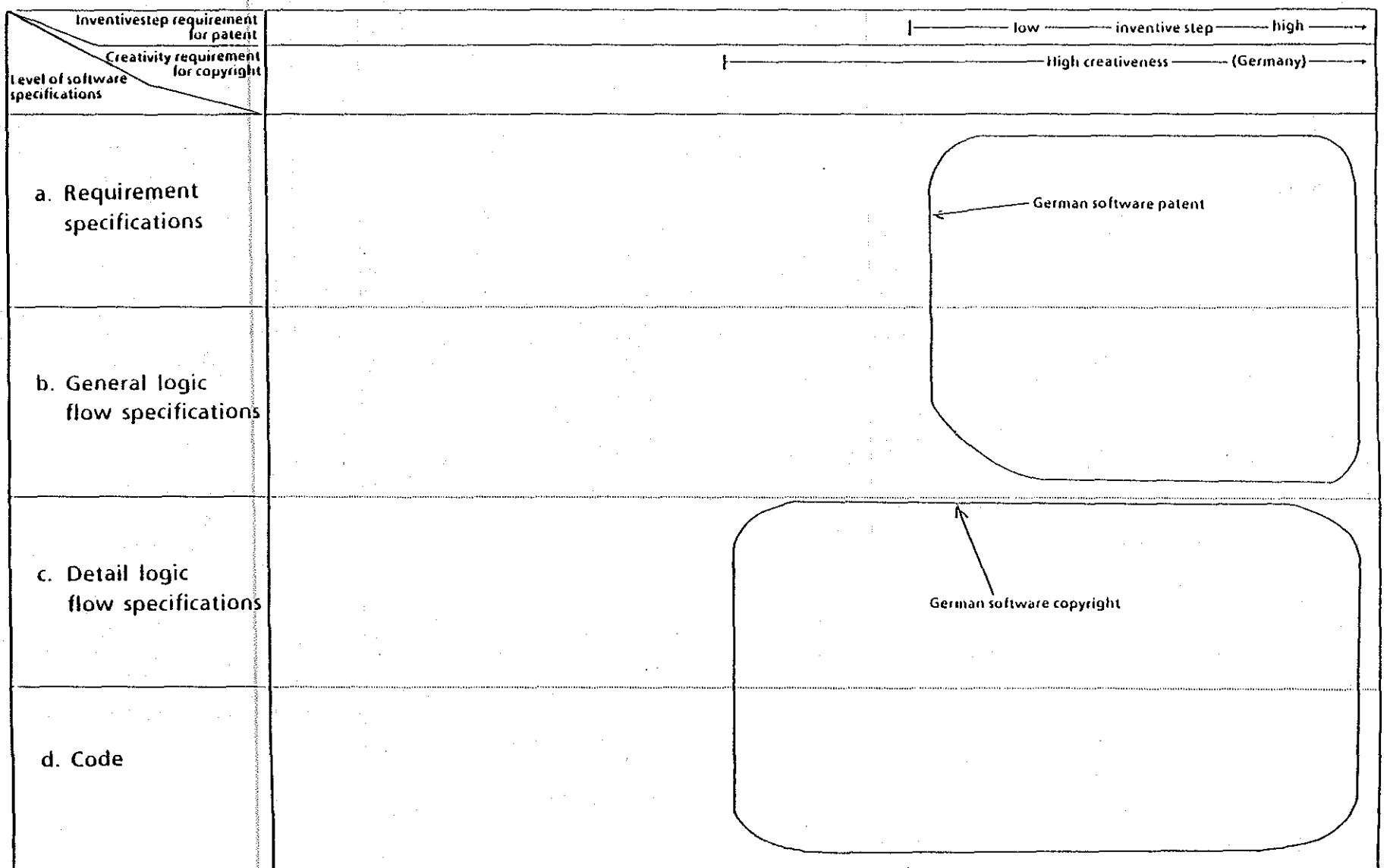


Fig. C: Boundaries for Software Protection in Japan

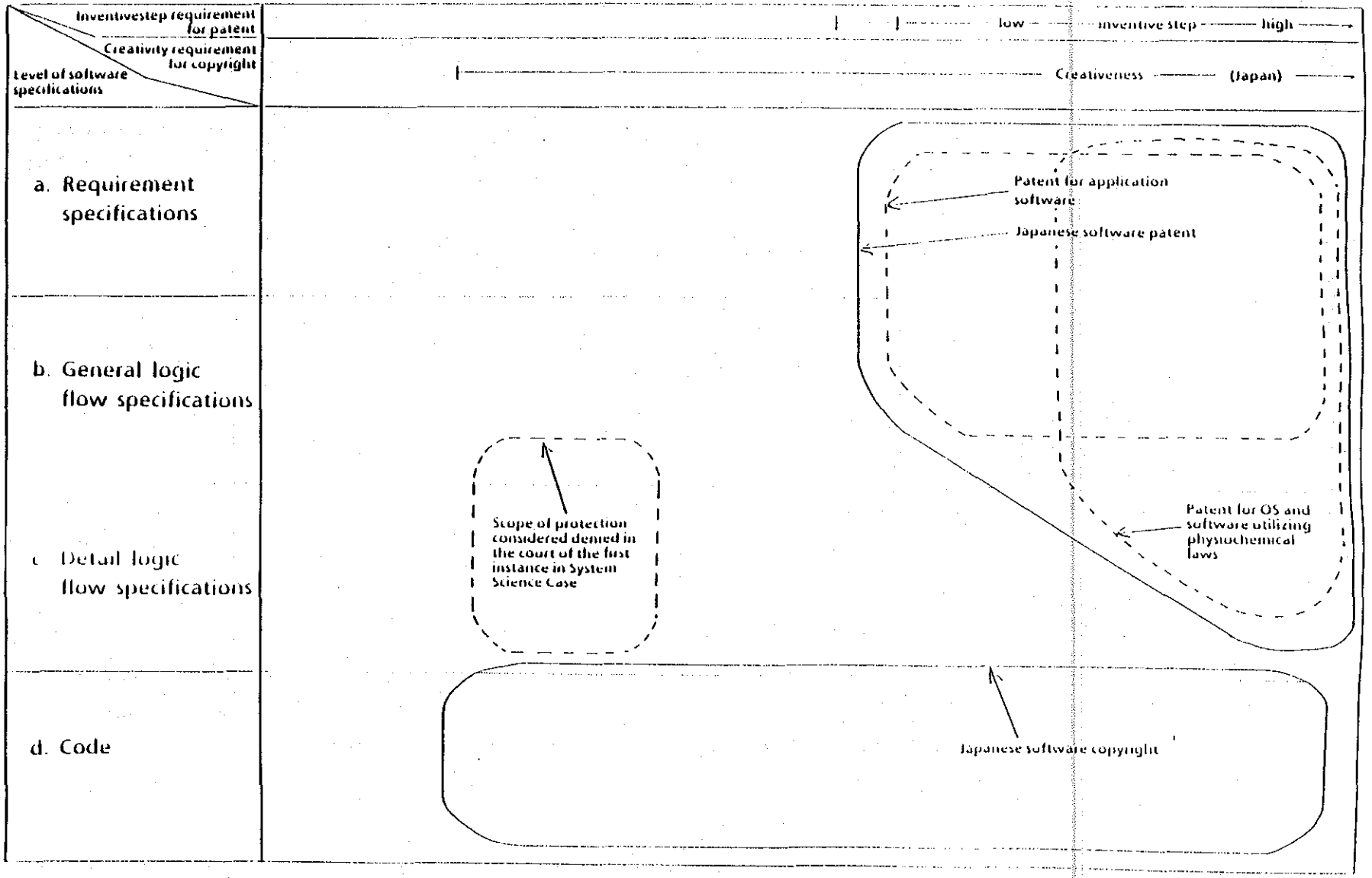
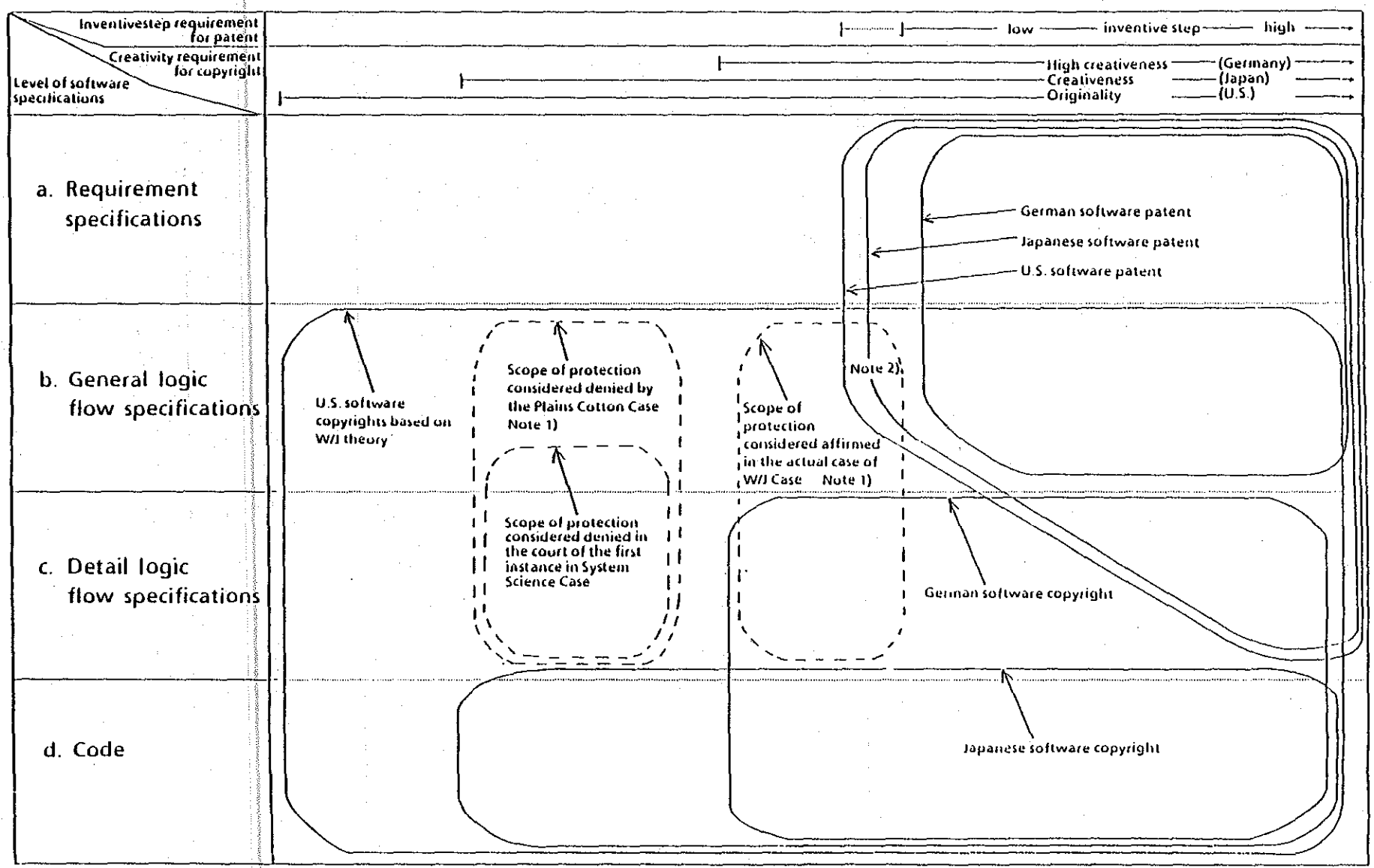


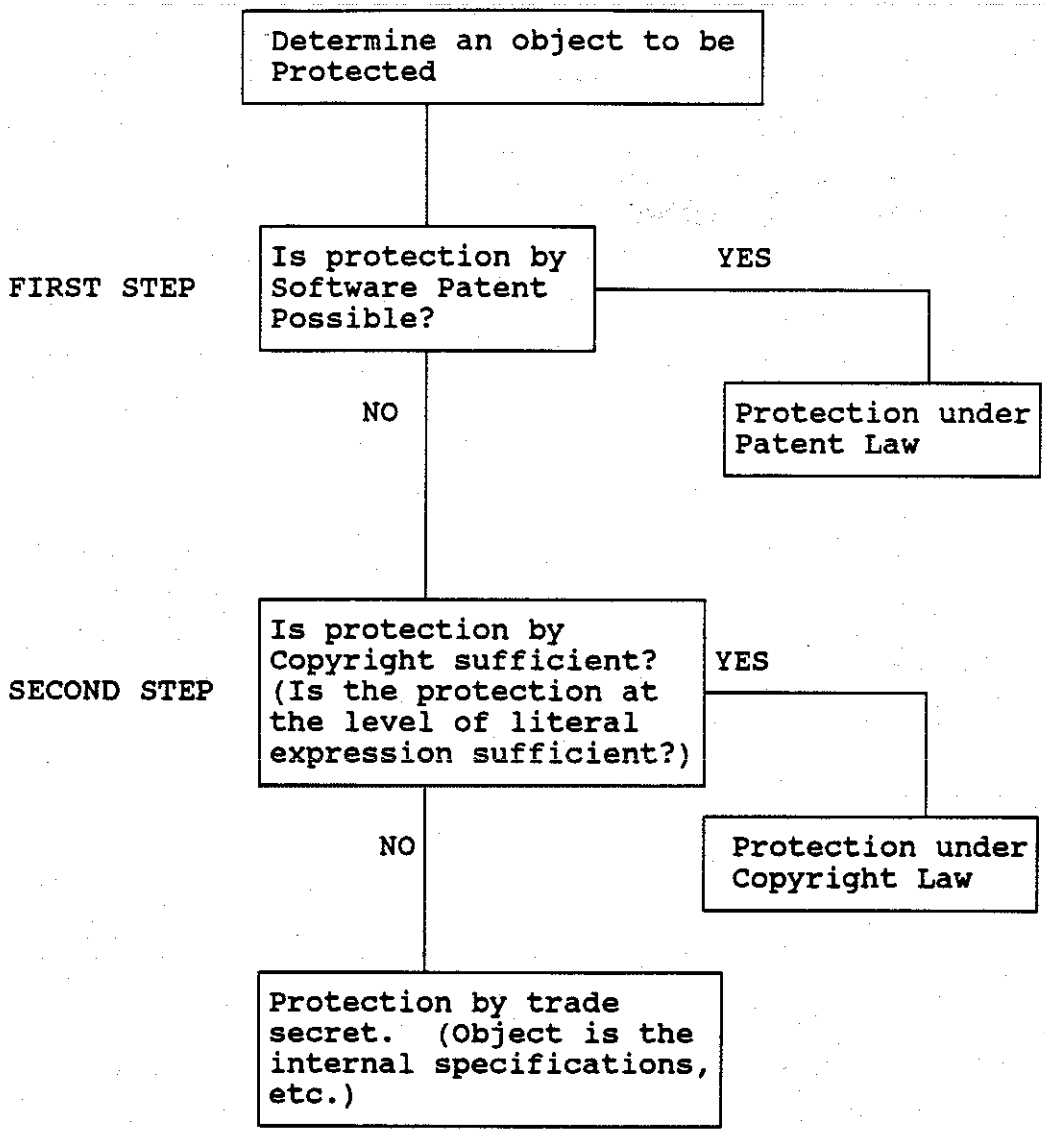
Fig. D: Comparison of Boundaries for Software Protection in U.S., Germany and Japan



Note: 1) Whelan v. Jaslow (W/J) and Plains Cotton Cases were not reviewed from the standpoint of "level of creativity" in actual proceedings. Evaluation and positioning for the two cases in the table are based on the author's assumption.
2) Programs with less inventiveness than Whelan's program are actually issued as patents, and therefore this positional relation is cited.

VIII: Proposal for a New Practical Guideline

We propose a two-part test as the practical guideline for software developers in selecting appropriate protection for software in view of the principle of the patent and the copyright laws shown in Figs. A through D and the increasing importance of protection by patent. When relying on the two-part test such as that described below, one must naturally note the differences in application of laws in various countries.



The guideline is based on the basic thinking that although literary works, such as novels, are not entitled to protection under the patent law but have to be protected by the copyright law, as for software, the sequence of processing or idea beyond the literal expression should be protected by the patent law while the literal expression alone is protected by the copyright law.

FIRST STEP: Developed software is first selected, and an object for which legal protection is desired is determined. The object is judged as to whether is can be protected by a patent. If "YES", the applicant can select and file for the protection under the patent law. If the answer is "NO", one goes to the second step.

SECOND STEP: The developer judges as to whether protection by copyright is sufficient or not (if legal protection of literal expression is sufficient), presuming that the copyright protection extends only to the level of literal expressions. If "YES", the copyright protection is sought. If "NO", the trade secret protection is sought. In practice, the object to be protected will be the internal specification, etc. Since a program per se cannot be claimed as a patent claim, it is judged "NO" in the first step, and is entitled to copyright protection in this second step.

The test chooses protection according to respective laws. It is, however, possible to obtain protection under the three laws of patent, copyright and trade secret depending on the idea, expression and degree of secrecy for a software product.

IX: Conclusion

The present study compared and reviewed the protection of application programs in the U.S., Japan, and Germany by plotting the level of software specifications along the vertical axis and the inventiveness and creativity along the horizontal axis, and also studied the practical guideline. As mentioned in Chapter

VII, the study revealed duplicate protection by a patent and copyright in the United States and areas without any protection in Japan and Germany. That software protection should differ from country to country may cause practical problems in software development, protection, use and licensing. We believe that a continued study on the desirable protection of software is warranted.

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"Software Protection: The Shifting Boundaries"

*1990 Report by Committee 2, PIPA Japanese Group
"Recent Issues in Software Protection"

(1) Title: Protection of Trade Secrets and Precautionary Measures in Japan

(2) Date: 10/91 (22nd Rochester Congress)

(3) Source:

1) Source:	PIPA
2) Group:	Japan
3) Committee:	2

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(5) Keywords: Trade Secrets, Unfair Competition Prevention Act, Injunction, Damages, Principle of Open Trial, Contract for Prevention of Concurrence, Contract for Confidentiality, Contract for Licensing

(6) Statutory Provisions: Unfair Competition Prevention Act, Article 1, 1bis Civil Code, Article 414 to 422,709 Criminal Law, Article 235,246,247,249,252,253

(7) Abstracts:

We have already introduced the details of the amended Unfair Competition Prevention Act at the 21st Congress. (Protection of Trade Secrets in Japan - Introduction of the Amendment of the Japanese Unfair Competition Prevention Act in 1990 - PIPA 21st Congress 1990). This amended Unfair Competition Prevention Act was enforced on June 15, 1991. We shall discuss what kinds of laws including the amended Unfair Competition Prevention Act are to be applied in Japan to the violation of trade secrets, referring to the recent case of Rockwell Graphic Systems Inc. v. DEV. Industries Inc. which US Court of Appeal remanded to the district court for further proceedings.

Furthermore, there exist such problems in Japan as concerns for possible disclosure of important trade secrets during the trial for protection of trade secrets, and difficulty of proving unfair acts due to non-existence of discovery system. The former stems from the open trial principle under the Japanese

Constitution. Counter measures thereto and check points of trade secrets contracts are also discussed.

1. Introduction

In recent years, the importance of such trade secrets as technical or marketing know-how has been increasing and the necessity of their protection from acts of unfair competition has been increasing. Under such circumstances, the amendment of the Unfair Competition Prevention Act had been studied. The amended Unfair Competition Prevention Act was promulgated on June 29, 1990 and became effective on June 15, 1991. This amendment regards unfair acts relating to trade secrets as unfair competition acts. As a civil relief to such act, among others, the right for an injunction is granted not only to a person who has acquainted trade secrets unfairly but to the third party who has received it from the disclosing person.

Before the amendment of the Unfair Competition Prevention Act, the violation to proprietary information invoked a civil relief under the Tort Provisions and Contract Provisions of the Civil Code. However, there were no statutory provisions stipulating a right to claim an injunction.

The criminal law has been available against violation of proprietary information as discussed later in Section 2.4.

Referring to Rockwell Graphic Systems Inc. v. DEV Industries Inc. case (No. 8406746, 2/11/90, CA7 No. 90-499, 2/11/91) as an example, the discussions are made hereunder as to how the laws are applied in Japan to the violation to trade secrets, assuming that the case occurred in Japan.

Hypothetical facts are incorporated as all the facts in the actual case are not clear.

Further, this paper discusses two problems in connection with legal procedures in Japan. First, publicity of trade secrets is likely to occur during the trial for its protection under the open trial principle applicable even to court records.

Second, proof of unfair acts is difficult in Japan where there is no discovery system. The measures to cope with these matters and the points to be considered in executing trade secrets contracts are examined.

2. Applicability of Japanese laws (Unfair Competition Prevention Act, Civil Code and Criminal Law) to the Rockwell Graphic System Inc. v. Industries Inc. case

2.1 Outline of the case

Rockwell Graphic Systems Inc. manufactured printing presses and their replacement parts. In some occasion, Rockwell subcontracted the manufacture of parts to vendors. Rockwell provided vendors with piece part drawings under a confidentiality agreement.

Rockwell, on the other hand, provided assembly drawings to customers.

Though these assembly drawings were not trade secrets, they included legend citing that they were trade secrets as the piece part drawings did.

An employee A of Rockwell left his company and, three years later, he joined DEV Industries Inc., a competitor of Rockwell as its president.

An employee B of Rockwell joined DEV the following year after being fired by Rockwell when a security guard caught him removing piece part drawings from Rockwell's plant. Rockwell brought a suit against DEV and former employee A for misappropriation of trade secrets. Discovery revealed 100 of

Rockwell's piece part drawings in DEV's possession. DEV claimed to have obtained them lawfully while Rockwell alleged that either of the former employees A or B stole them or DEV obtained them in unlawful manner.

The U.S. district court granted a summary judgment that trade secrets of Rockwell is invalid because Rockwell failed in assuming adequate precautions for confidentiality. Rockwell appealed. The U.S. Court of Appeals reversed the summary judgment and remanded for further proceedings by the trial court.

See 16USPQ2d, No. 84C6746 and 17USPQ2d, No. 90-1499 for further details.

2.2 Applicability of the Unfair Competition Prevention Act

2.2.1 Are Rockwell's drawings eligible for protection as trade secrets?

According to the articles 1 - 3 of the Unfair Competition Prevention Act, the requirements for trade secrets protection are as follows.

a) Technical or trade information useful for business activities
b) Not publicly known
c) Protected as secrets

There is no doubt as to the eligibility of the piece part drawings possessed by DEV as found in discovery so far as the requirements a) and b) are concerned. However, it is disputable whether these piece part drawings fulfill the requirement c).

In connection with requirement c), the MITI's guideline of the Unfair Competition Prevention Act ("For Implementation of the Amended Unfair Competition Prevention Act Concerning Protection of Trade Secrets ~ With Emphasis on Analysis of Domestic and Foreign Cases ~ " issued by the

Ministry of International Trade and Industry (MITI), May 1991) shows fundamental views of the precautionary measures as follows.

- Fundamental views of the precautionary measures -

The term, "Protected as secrets" means "to maintain the management of secret objectively to the extent where employees and outsiders can be notified of confidentiality."

Basically, the following approaches may be conceivable.

(1) Measures are taken to make persons who may have an access to the secret information realize that the information is trade secrets,

(2) Access to the information is limited by location and by physical means,

(3) People who can have an access to the information are limited, or use and disclosure of the information are limited although they had accesses to it.

All of these conditions are not necessarily required.

Further, there exists no absolute yardstick to measure the degree of an administration of the secret information. Whether the measure taken is sufficient or not is to be decided taking into consideration of relationship with the actual facts of unfair acts.

For example, it is not justified that an intruder from the outside for industrial espionage could be discharged from theft even if there were no indications of trade secrets or failure of locking and keying systems at the management site.

To the contrary, for employees having a chance to have an access to trade secrets, indications of trade

secrets and confidential liability for use and disclosure are, in some case, necessary.

Further, in case of highly vicious unfair acts by an employee where trade secrets bearing confidential obligation are taken out from the custody site and sold to a competitor, it is not justified that the employee becomes innocent for the reason that no key was locked at the custody site.

- Precautionary measures taken by Rockwell -

The piece part drawings of Rockwell bear indications of "Confidential" which fulfill the requirement (1). Requirement (2) will be discussed hereinbelow.

It is worth appreciating that the original copies of the piece part drawings were kept in the vault of Rockwell. However, nobody knows how many copies were made and circulated to. Copies were not collected and sometimes thrown into a trash can. Consequently, it is our view that the measures taken were not those restraining access. In order to fulfill the requirement (2), it is necessary to make restriction of access not only to the original but to their copies. Then the requirement (3) is discussed below.

Rockwell attempted to limit that people who can have an access to the piece parts drawings. Rockwell had contracts with vendors for confidentiality. These should be valued while there were no evidence to establish that employees of Rockwell were subject to limited disclosure of the piece part drawings to the outside. The piece part drawings bear the indication of "Confidential" and people accessible to the piece part drawings are limited. Therefore, the absence of contract for confidentiality with employees would not cause any problem in our opinion. However, the confidentiality

contract were neglected by vendors.

i) If Rockwell knew of the negligence by the vendors

If Rockwell left the negligence uncured in spite of knowing it, no efforts of Rockwell should be found with respect to requirement (3). In this case, our general impression is that Rockwell took only measure for requirement (1) and that it is far away from "reasonable effort". Consequently, the requirement (c) is not fulfilled and likelihood of being acknowledged as trade secrets for protection is small in Japan.

ii) If Rockwell did not know of the negligence

If Rockwell did not know of negligence of the confidentiality contract, only the venders who did not comply with the obligations of confidentiality should be responsible. Rockwell should be presumed that they took some measures on requirements (1) and (3). For satisfaction of the requirement (c), it is not necessary to fulfill all the requirements (1) to (3). Overall consideration should be carried out and there is a possibility that requirement (c) is found to have been met.

So far as our surveys are concerned, there are no Japanese case in which appropriateness of management for confidentiality was the main issue. We have to wait until when cases for the judgment of this issue is accumulated.

2.2.2 Relief in case the trade secrets requirement is met
Assumption is made that the trade secrets requirement is fulfilled.

i) Another assumption is made that former employees A and B took out certain piece part drawings though this issue

was not established in the actual case despite Rockwell's assertion.

The Article 1-(3)-(ii) of the Unfair Competition Prevention Act stipulates as unfair act concerning trade secrets "an act of acquiring trade secrets with the knowledge that there is intervening unfair act of acquisition involving such trade secrets or not knowing it in gross negligence or an act of using or disclosing such acquired trade secrets" and permits claims for injunction or prevention of such unfair act concerning trade secrets.

DEV could have learned from the explanatory note attached to the piece part drawings that the intervention of unfair acquisition of trade secrets happened. Thus, Rockwell is entitled to claim cessation of use of piece part drawings to DEV.

ii) On the other hand, an assumption is that DEV got the piece part drawings from other source than Rockwell, for example from, vendors or customers who obtained the piece part drawings from vendors. DEV could learn from the note thereon that there were unfair disclosure of trade secrets or the intervention of such unfair disclosure.

The article of 1-3-(v) of the Unfair Competition Prevention Act stipulates as unfair act concerning trade secrets "an act of acquiring trade secrets with the knowledge that it constitutes an unfair act of disclosure of trade secrets or there is an intervening unfair act of disclosing trade secrets or not knowing it in gross negligence or an act of using or disclosing such acquired trade secrets" and permits claims for injunction or prevention of such unfair act concerning trade secrets. So, in this case too, Rockwell can claim for cessation of using the piece part drawings.

Further, in both cases of i) and ii), the proprietor of trade secrets may also claim for the destruction of the products manufactured with unfair acts concerning trade secrets or the equipment used for the unfair acts in

accordance with the Article 1 - 4 of the Unfair Competition Prevention Act.

In addition, the Unfair Competition Prevention Act stipulates that "a person who has intentionally or negligently inflicted any injury to the business interest of another by an unfair act involving trade secrets shall be liable for compensation of damage within three years from the time a holder of the trade secrets knew the fact and the party performing the unfair act and within 10 years from the time of commencement of an unfair act." Consequently, provided that these condition are met, damages can be claimed.

2.3 Applicability of the Civil Code

2.3.1 Tort Law

Before the amendment of the Unfair Competition Prevention Act, there were no statutory provisions explicitly stipulating trade secrets as a legal right. However, civil relief had been granted under Tort Law in cases where deprived information is worth being protected.

Unlawful conduct is found when the "right" of another person are infringed intentionally or negligently (Civil Code: Article 709).

Court decisions regarding this state that any interests worth being protected are considered to be "rights" under Tort Law (for example, Daishinin, Decision dated November 28, 1926, Daigakuyu Case).

For the Rockwell v. DEV. case, damages would be available under Article 709 of the Civil Code. Regarding the management system for the protection of trade secrets and how it operates are also questioned when determining the potential worth with regards to legal protection.

2.3.2 Applicability of Contract Law

A compulsory obligation of confidentiality to the counterpart in a confidentiality agreement is available

(Civil Code: Article 414), and damages are available in the case of an unfair act (Civil Code: Article 415 to 422). No stipulation exists regarding an injunction, but it is an established theory that an injunction is applicable in cases where irrecoverable damages are foreseen due to a misappropriation.

In a case like Rockwell v. DEV., in which DEV received piece part drawings through former employees A and B, who had entered into confidentiality agreements with Rockwell, Rockwell is entitled to claim damages against A and B but not to an injunction to prevent DEV, with whom no direct contractual relation exists, from using the piece part drawings.

Similarly, when DEV receives piece part drawings through vendors, Rockwell is entitled to claim damages against the vendors, but not damages from or an injunction against DEV, who is not a counter-part of a contract, preventing them from using the drawings.

2.4 Applicability of Criminal Law

The Unfair Competition Law contains criminal provisions in general terms but excludes any related to trade secrets. But a penalty is applicable under Criminal Law for the theft of trade secrets.

2.4.1 In cases where information is recorded on a tangible medium

For cases of misappropriation of other party's property, such offenses as theft (Criminal Law: Article 235), fraud (Criminal Law: Article 246), duress (Criminal Law: Article 249). embezzlement (Criminal Law: Article 252,253) or breach of trust (Criminal Law: Article 247) are applicable.

In order to judge whether the recording mediums, with information recorded thereon, such as paper, magnetic tape, photo film, etc., are considered property, many cases considered requirements b and c, as well as requirement a,

listed below (for example, Tokyo High Court, Decision dated August 26, 1986, Entrance Examination at Waseda University):

a. Economic value
b. Not publicly known
c. Protected as secrets

In the Rockwell v. DEV. case, theft or duress would be applicable if former employee A or B stole the drawings or sold for their own interest the drawings in their possession, which belonged to Rockwell.

Of the above listed requirements, requirement c is not so strictly applied in every criminal case. For example, there are a lot of cases which found that requirement c was fulfilled, even if it was not kept under lock and key.

It is highly likely that these piece part drawings are acknowledged as "an other party's property", as Rockwell did not renounce the right of property of the drawings and controlled to some extent the explanatory note regarding the drawings.

2.4.2 In cases where information is not recorded on a medium

In cases where a person managing information disclosed the information, thus causing property damage, breach of trust (Criminal Law: Article 247) is applied.

In this case also, fulfillment of the conditions a to c shown in 2.4.1 is required even for information that is not recorded on a medium.

Laws applied to the misappropriation of secrets

law	ways of misappropriation	legal effects
1. Unfair Competition Prevention Act	Misappropriating "trade secrets"	injunction (1 - 3) destruction of products and equipment (1 - 4) damages (1-2-3) measures to restore business goodwill (1-2-4)
2. Civil Code (Tort Law)	misappropriating intentionally or negligently information worth legal protection	damage (709)
3. Civil Code (Contract Law)	breach of confidentiality	compulsion of obligation for confidentiality (414) damage (415 to 422)
4. Criminal Law	act depriving the formed goods containing proprietary information by theft, fraud, duress, embezzlement etc.	theft (235) fraud (246) duress (249) embezzlement (252,253)
	act disclosing information and causing proprietary damage by a person in a position of managing information	breach of trust (247)

3. Problems in litigation procedure related to trade secrets and their countermeasure

3.1 Problems in establishing unfair acts

In Japanese litigation procedure there exists no system equivalent to discovery in U.S.A. So, it encounters quite a lot of difficulty in proof of unfair acts such as disclosure of trade secrets. In order to cope with it, at the time of disclosure of trade secrets, some measures should be considered as having the provision in the contracts stipulating an obligation of a party disclosed trade secrets to cooperate with a disclosing party in the case of finding out the unfair acts of disclosure of trade secrets. We will discuss this in datail in Section 4.2.2.

3.2 Principle of open trial and affiliated problems

The Article 82-1 of the Japanese Constitution stipulates that oral proceedings and judgments shall be conducted in open court. Anybody can see the litigation records (Code of Civil Procedure; 151-1).

Anticipation exists trade secrets shall become public if oral proceeding in the litigation related to trade secrets shall be conducted in open court and the litigation records shall be opened to the public.

During the trials, the concrete content of the case shall be known by auditors in the examination of proof such as examination of witness.

The Constitution does not require that all trials shall be public. Further, the Article 265-1 of the Code of Civil Procedure stipulates that "the court can examine the proof outside the court when it considers reasonable".

In order to prevent the publicity of trade secrets during trials, the measures as request of examination outside open court and so on are necessary. In addition, in this case, the consideration by court is necessary as imposing obligation for confidentiality to attendants. On the other

hand, as the trial records shall be offered for public perusal, description of petition and preparatory documents and handling of evidence containing concrete description of trade secrets shall also be careful.

In order that the content of trade secrets shall not be public by perusal of litigation records, the following measures are proposed.

a. The description of the concrete content of trade secrets in a petition or preparatory documents shall be avoided. The concrete content of trade secrets shall be described to the attached sheet and referred to the attached sheet in a petition and preparatory documents. The attached sheet should not be included in the litigation record.

b. The evidence in which trade secrets is described concretely is to be included in the litigation record after masking the specific part.

c. The evidence in which trade secrets is described should be examined not as documentary evidence but as goods to be inspected and its consequence should be included to the litigation records as a protocol of on-the-spot inspection.

Consequently the copy itself of evidence is prevented from inclusion to the litigation records.

In the case of Waukeshiya (Tokyo High Court, Decision dated September 5, 1966), an American Corporation B granted know-how for a manufacturing method of a propeller shaft by German Corporation A disclosed the know-how to a Japanese Corporation C and made manufacture violating the contract for confidentiality, this case is an example the objective of injunction was described referring to the attached sheets and treated as the content of know-how is not to be cleared out without the attached sheets.

On the other hand, in the Foseco Japan Case (Nara District Court Decision dated October 23, 1970), as two former employees of a company A engaged in manufacture and sale of auxiliary materials of metal molding, after retirement from the company, established a new company B to

engage in manufacture and sale of the same kind of products as that of the company A, the company A filed an application for provisional remedy prohibiting unfair competition, this case is an example that the technical manual was identified as inspection goods, not as documentary evidence and the court took into consideration in description of the protocol of on-the-spot inspection.

However, to carry out the litigation preventing the publicity of trade secrets shall require a lot of effort and it is impractical to put the measure into action without consideration of court. In the litigation in Japan, the assured method restricting publicity of trade secrets does not exist as a definite system.

4. Points which could be considered regarding Trade Secrets Confidentiality Contract

There are contracts for confidentiality with employees, contracts following to disclosure of trade secrets and so on as typical type of contracts and a special attention should be paid for confidentiality agreements. In the agreement with employees there is a dispute in connection with the method of contracts prohibiting work in competition after retirement.

In the licensing agreement including trade secrets attention should be paid to the said principle of open trial and related problems. Namely, in Japan in case of filing the matter related to disclosure of trade secrets with the court, the content of trade secrets may become public. Therefore, such measures not provoking a problem of disclosure or possible to settle as the problem between the parties concerned even if it happened shall be worked out in the contract. The followings are explanation of points for attention in contracts with employees and licensing contracts and investigation of the relation with the Rockwell case.

4.1 Contract with employees

4.1.1 Contract for confidentiality/written oath

These contracts are performed at the time of joining company and retirement from it (not usually carried out).

To make these contracts enforceable, it is necessary to clarify the subject of confidentiality and to manage secrecy of the subject adequately. At the time of retirement of an employee, it is necessary that all the documents of the company in retiree's possession should be returned. Payment of confidentiality allowance during his employment will support the insistence of enforceability of the contract. In Rockwell case, these measures seem to have not been taken. With these measures stipulated in the contracts, Rockwell could have argued more strongly a misappropriation of Rockwell's trade secrets by a retired employee.

4.1.2 Non-Competition Contract

Employment of a retired employee by a competing company or establishment of a competing venture by him shall cause a serious problem for his former company, and such seriousness grows larger when he was engaging in advance technological fields. To avoid this, an employer may want to prohibit an employee from moving to a competitor under a contract, thereby to avoid a possible disclosure of confidential information more efficiently. In order to make such a non-competition contract enforceable, an important point to consider is the balance with the employee's freedom to choose occupation. The Foseco Japan case in 1970 is important as the court showed one of the standards relating to non-competition contracts. In this case, the court related to the issue of enforceability and stated that such matters as 1) duration of restriction, 2) territorial scope of restriction, 3) scope of jobs subject to restriction, and 4) existence of compensation should be reviewed in light of the following three aspects: whether change of jobs or re-employment was disturbed and/or whether monopoly could be found; and whether general consumers' benefits were adversely affected by the monopoly. In this case, the court found a

non-competition obligation effective on two former employees for two years.

When a non-competition obligation is sought in the agreement, such measures as payments of a confidentiality allowance during employment or retirement grant with a premium at the time of retirement, would be effective grounds for assertion of the enforceability of the non-competition obligation.

Whether Rockwell could make a non-competition contract with employees A and B depends on whether A and B were accessible to trade secrets. As it is practically difficult to make such a contract with a person who retires with a intention to get a competing job for a competing company, it should be sought at the time when he was assigned a role to have an access to trade secrets.

4.2 Licensing contract

With regard to confidentiality agreements between corporations, a valuable report was read in the last year's PIPA International Congress at Niigata. (See "Protection of Trade Secrets Between Corporations" W.K. Turner, J.W. Amborosius, PIPA 21st Congress, 1991).

In this paper, we attempt to supplement points with more emphasis on license agreements under which a recipient of trade secrets is authorized to use the licensed trade secrets to a limited extent.

4.2.1 Measures preventing disclosure of trade secrets

Considered as measures to be taken in contractual conditions in licensing arrangements are as follows.

(1) Provisions for specific confidentiality arrangements (for example, requiring listings of the names of managers and employees of the licensee who are accessible to the licensed trade secrets and/or requiring notice of details of individual contracts with the employees).

(2) Provisions for audit by the licensor of management of the licensed trade secrets

When a licensing agreement including trade secrets is executed, the point to consider is whether a licensee is fully reliable in confidentiality management of trade secrets. If a licensee is selected after full consideration of this point, the above (1) shall be measures for confirmation of confidentiality management by the parties. In the latter provision, however, there should be appropriate measures to be adopted for protection of licensee's own trade secrets to avoid coverage by the audit.

In case of leakage by dropout employees, for example, the former employer may claim injunction according to the Article 1 of the Unfair Competition Prevention Law. In claiming injunction based upon the Article 1 of the law, it must be proved that leaked information was treated as secret information by its holder or licensee. In this point of view, compliance with the provisions mentioned in (1) by the contract parties would ease the burden of proof for the management of trade secrets.

In the Rockwell case, Rockwell executed confidentiality agreements with vendors. However, no such measures (1) and (2) as mentioned above seem to have been taken appropriately. If these measures were taken, Rockwell could have argued the eligibility as trade secrets of piece part drawings more effectively.

4.2.2 Arrangements to trace back to the source of leakage

* Provision for disclosure of necessary data to identify the source of leakage

In U.S.A., when a leakage of secret information is intended to sue, discovery procedure would be available to identify who leaked the secret information. In Japan, the burden of proof of default by the licensee rests on the licensor in case where the licensor questions if the leakage was made by the licensee.

Unlike U.S.A., discovery procedure does not exist in Japan as a means for collection of evidence. The licensor faces the difficulty in proof. Such a difficulty causes psychological hesitation to select the settlement by the trial, along with the aforementioned hesitation under the principle of open trial. We propose to include a provision of bilateral obligation for co-operation in tracing back to the source of leakage of secret information when the agreement is prepared. When opinions of the parties differ in connection with alleged leakage, it shall be practically difficult to carry out this co-operational obligation without predetermined, reasonable conditions therefor. Because there is a possibility that the parties become hostile to each other. It is preferable for this reason that a neutral body should be a recipient of data relating to the leakage of information. To be more specific, an arbitration organization agreeable to the parties beforehand would be most likely, and a group of specific lawyers would be possible.

4.2.3 Measures for earlier settlement of leak disputes

(1) Clarification of the subject for which the claim of damages are to be admitted.

(2) Promise of cessation from using trade secrets until the settlement of a dispute.

As to the compensation of damages by disclosure of trade secrets, it should be noted that the Japanese courts tend to be severe in acknowledging the damages and the scope of acknowledged damage is generally narrow. It is especially true in the case where breach of contract concerning an intangible property brings about damages. It is difficult for the licensor to prove the breach by licensee and to prove its causation.

In this point of view, as for the clarification of the subject, we suggest that the subject of damage and the damages shall be entered into the agreement as provisions agreed by the parties. The following, however, are problems. One is that licensee would not accept such a provision in

case of huge amount of damages. The other is that such a provision might be questioned about its enforceability in case of excessively broad coverage for possible damages.

In the latter case, for example, a key to judgment is whether it would comply with the guideline of the Fair Trade Commission in Japan, namely, "Guidelines for Regulations of Unfair Trade Practices with respect to Patent and Know-how Licensing Agreements" (published on Feb. 1989 and we made reports on this guidelines at 20th PIPA Tuscon International Congress.) With respect to provisional injunction, finding of irreparable harm is very strict in Japan. In many cases, the matter has usually to wait for judicial decisions by the courts.

However, when the both parties agree in the agreement to cease using trade secrets under certain conditions, such agreement shall be valued accordingly. Assuming a worst possibility that a leakage of trade secrets occurs during the course of a license agreement from the side of a licensee, it would be effective for reaching an early settlement of damages negotiation to have a provision to stop the use of licensed trade secrets by the licensee. With such a cessation provision, absence of provisions to clarify the subject for which the claim of damages are to be admitted, would be substantially compensated.

With respect to details of cessation provision, careful wordings should be employed so as not to adversely affect enforceability of the agreement.

5. Summary

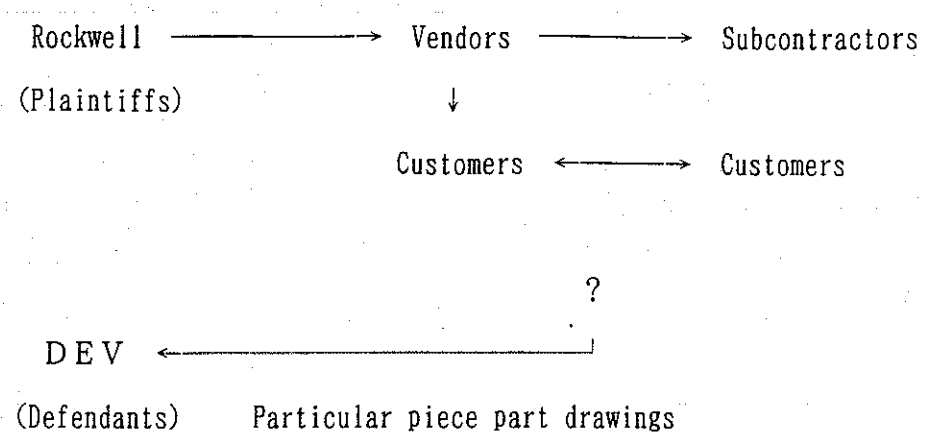
With respect to the scope of precautionary measures, the MITI's guideline does not provide a concrete standard. It simply indicates that the reasonableness of precautionary measures should be determined taking into account the nature of unfair conduct.

We could not find any court decisions involving, as main issues, reasonableness of precautionary measures. It is therefore, difficult to learn such standard from the court decisions. Accumulation of such cases are expected.

In the Rockwell case, cost/benefit balance was weighed, in our understanding, in judging the reasonableness of precautionary measures. It will be worth monitoring whether cost/benefit balance will tend to be weighed in Japan in judging the reasonableness of precautionary measures.

As regards litigation procedures including trade secrets issues, we would like to seek another chance for discussion, if any movement for the amendment of the Law on the Code of Civil Procedure is observed.

Flow of Rockwell Piece Part Drawings



Rockwell has confidentiality agreement with vendors.

Each of Rockwell drawings contains legend citing,

> This print is the property of MGD Graphic systems and is loaned in confidence subject to return upon request and with the understanding that no copies shall be made without the written consent of MGD Graphic systems.
>
> All right to design or invention are reserved.
>
> (MGD is an aspect of Rockwell)

Customers and Vendors have large numbers of Rockwell drawings.

Customers share with each other, vendors share with customers and subcontractors, and Rockwell employees share with both vendors and customers.

None of the particular piece part drawings that DEV obtained was in the possession of any other entity disclosed in discovery.

PIPA Database Coversheet

(1) **Title** : Trade Secrets—The View In The United States

(2) **Date** : August 1991

(3) **Source**
1) **Source** : PIPA
2) **Group** :
3) **Committee**:

(4) **Author(s)** Robert E. Greenstien
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(5) **Keyword(s)** : "Trade Secrets"; Rockwell; Remedies

(6) **Statutory Provision(s)** : Restatement of Torts

(7) **Abstract**

Trade secret protection through the courts is dependent on the facts in each case. The trier of fact must determine if a secret exists at all to decide that misappropriation has taken place and if the owner protected the secret in a way commensurate with the relief it seeks so that protection does not conflict with Federal patent and copyright laws.

TRADE SECRETS
THE VIEW IN THE UNITED STATES

Robert E. Greenstien

The law of each of the United States provides the basis for establishing and enforcing trade secret rights. What is a trade secret and how it should be protected to have an enforceable right against misappropriations can vary from state to state based on local public policies. Patent and copyright coverage, on the other hand, is determined exclusively by Federal law. A state court can provide legal and equitable remedies on trade secret cases as long as this does not alter the impact of Federal law, for instance, by preventing use of publicly disclosed information. *Kewanee Oil Company v. Bicron Corporation* 416 U.S. 470 (1974).

The definition of a trade secret most widely followed is in the Restatement of Torts; it states that:

> "[A] trade secret may consist of any formula, pattern, device, or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it." Restatement of Torts §757, Comment (b) (1939)

This definition, which only requires *relative* secrecy, is utilized in states applying the common law on trade secrets as well as in states that have adopted the Uniform Trade Secrets Act or statutes closely related to it to overcome some of the uncertainties and abstractions in trade secret law that have caused problems for the courts.[1] See, for example, *Telex Corp. v. IBM, 510 F.2d 894* (10th Cir. 1975), *cert dismissed*, 423 U.S. 802 (1975). Since patent, copyright and trade secret coverage of ideas often overlap in the real world, competing public policies underlying each form of protection create conflicts that the courts do not find easy to resolve. This is at the center of the decision in *Rockwell Graphic Systems Inc. v. DEV*, 17 U.S.P.Q.2d 1780 (7th Cir. 1991), a case that offers an interesting analysis of trade secret law against the backdrop of a relevant factual setting involving manufacturing drawings. However, because the court in *Rockwell* only considered the lower court's summary judgment dismissal of the claim of trade secret misappropriation, the opinion, more than anything else, supports the proposition that certain forms of trade secrets and certain procedures for handling trade secrets do not, per se, destroy a trade secret.

Rockwell provided information (assembly drawings) to customers without restriction but marked all other information to identify it as a trade secret, whether or not it was actually available to the public. Some of that information, namely piece part drawings, were given to manufacturing vendors under confidentiality agreements, which were not diligently policed by Rockwell. A vendor was permitted to retain these drawings

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[1] Ark. Stat. Ann. §70-1001 et seq. (Supp. 1985); Cal. Civ. Code § 3426 et seq. (West Supp. 1986); Colo. Rev. Stat. § 7-74-101 et seq. (1986); Conn. Gen. State. Ann. §35-50 et seq. (Supp. 1986); Del. Code Ann. tit. 6 §2001 et seq. (Supp. 1984); HB 91, Fla. Uniform Trade Secrets Act (1988); Idaho Code Ann. §48-801 et seq. (Supp. 1986); Ill. Pub. Act 85-366 (1988); Ind. Code Ann. §24- 2-3-1 et seq. (West Supp. 1986); Kan. Stat. Ann. §60-3330 et seq. (1983); La. Rev. Stat. Ann. 51:1431 et seq. (West Supp. 1986); Minn. Stat. Ann. §325C.01 et seq. (1981 and Supp. 1986); Mont. Code Stat. §30-14-401 et seq. (1985); N.C. Gen. Stat. §66-152 et seq. (1985); N.D. Cert. Code s 47-25-1-01 et seq. (1985); Okla. Stat. tit. 78, §85 et seq. (Supp. 1986); Wash. Rev. Code Ann. §19.106.010 et seq. (Supp. 1986); W. Va. Code §47-22-1 et seq. (1986); Wis. Stat. Ann. §134.90 (West Supp. 1986)..Ill. Pub. Act 85-366 (1988); Mass. Ann. Laws ch. 93, §42, §42A; N.M. Stat. Ann. §30-16-24(e)-(d)

in the event it was called upon to manufacture a part for Rockwell, a matter of convenience for Rockwell, not unlike the situation found at many businesses. The defendants, former employees, left Rockwell and used some of these drawings, but maintained, without much proof, that they used the drawings given to vendors (not from Rockwell), which it said were not trade secrets. In defense of the allegation of trade secret misappropriation under Illinois law and under the Federal anti-racketeering act, the employees said that the drawings could not be protectable trade secrets because Rockwell had not sufficiently controlled access to the drawings by allowing the drawings to stay with the vendors when it could have retrieved them. Rockwell, however, did exercise sound security procedures internally to protect disclosure of the piece part drawings by its employees.
The practical aspects of trade secret controls often do not measure up to the ideal, for many reasons, the court found. The test should be whether the trade secret owner did what was reasonable under the circumstances, a factual issue, not suitable for summary judgment. In *Rockwell*, the defendants argued that because Rockwell did not do everything right, *Rockwell* had forfeited the trade secrets in the piece part drawings, even though none of them were freely available to the public. The court disagreed: the practical realities of the business and marketplace determine whether the trade secret owner failed to handle the secret properly, and that is a decision for the fact finder at trial.

Following a novel argument, the defendants also asserted that Rockwell should be barred from asserting its rights under trade secrets should those rights exist at all because it had indiscriminately marked documents as proprietary, also a situation common to many businesses. The court flatly rejected this theory of "trade secret misuse", saying at 17 U.S.P.Q.2d 1782:

> "[T]here are any number of innocent explanations for Rockwell's action in "overclaiming" trade secret protection.... [U]ncertainty as to the scope of trade secret protection, concern that clerical personnel will not always be able to distinguish between assembly and piece part drawings at a glance, and the sheer economy of a uniform policy--but also because it would place the owner of trade secrets on the razor's edge. If he stamped "confidential" on every document in sight, he would run afoul of what we are calling (without endorsing) the misuse doctrine. But if he did not stamp confidential on every document he would lay himself open to an accusation that he was sloppy about maintaining secrecy...."

In dealing with the allegation that the piece-part drawings were not valid trade secrets, the court discussed two "conceptions" behind trade secret law. Under one conception, actionable misappropriation takes place when the facts show that information can only be obtained through wrongful means because the trade secret owner guards the information very carefully. Under the second concept, even if there is a wrongful act but the owner guards the information so loosely that it must have minimal value, a court should not elevate the information to a higher level by enjoining the wrongdoer, since that would give the trade secret owner a benefit it never intended to enjoy. See also *S.I. Handling Systems v. Heisley,* 753 F.2d 1244 (3d Cir. 1985).

The first test is simply an evidentiary standard. In a real setting, it would be used to rebut the wrongdoer's defense of independent creation. The second test focuses on the balance between redressing the wrong done to the trade secret owner and the long-standing rule that information available to the public can only be restricted for a limited time through patents and copyrights. *Kewanee Oil Company v. Bicron Corporation*, supra.

If a trade secret owner does not carefully protect the information, it should not matter whether or not the information is available to the public, the court seemed to say. The result would be that the trade secret owner could exclude one class (the wrongdoer) from using the same information that for all intent and purposes was available to the public. The owner then could get the benefits of a patent or copyright without having either. Under *Kewanee*, this is always available to a trade secret owner, provided it does not have the effect of creating patent or copyright type protection for unpatented or uncopyrighted information that is in the public domain. This tension between Federal patent and copyright law and state tort law on misappropriation of trade secrets

is the reason why courts struggle to decide when there is actionable misappropriation and when there is not, even though the trade secret owner is harmed. See, for example, *S.I. Handling Systems v. Heisley*, supra.

As held in *E.I. duPont de Nemours & Co. v. Christopher*, 431 F.2d 1012 (5th Cir.1970), (over-flights to discover information) when the trade secret owner has done about all that is practicable under the circumstances to guard the information, extraordinary efforts to uncover the information, even if absent a trespass or other invasion or a taking, will be actionable. If not, the economic benefits from trade secrets would be lost in the sense that it could be cost prohibitive to use certain information at the risk that it would be discoverable even by extraordinary means.

In *Combustion Engineering, Inc. v. Murray Tube Works*, 222 U.S.P.Q. 239 (E.D. Tenn 1984), the court found that the trade secret owner could not enjoin the use of information contained in marked documents because the legend had been disregarded for many years. Steps to protect information must be not just ritualistic in the opinion of the Second Circuit in *Defiance Button Machine Co. v. C & C Metal Products Corp.* 759 F.2d 1053 (2d Cir. 1985), where the court found that information stored in a computer and accessible only by a password was not a trade secret when the computer was sold without any restrictions on its use and the information was accessed by hiring an employee knowing the password. On the other hand, rummaging through trash containers containing trade secrets is improper. *Tennant Company v. Advance Machine Company*, 355 N.W.2d 720 (Ct App 1984). Hiring a former employee knowing that the employee possesses a trade secret is improper. *By-Buk Co. v. Printed Cellophane Tape Co.*, 163 Cal App.2d 157, 329 P.2d 147 (1958); *Minnesota Mining & Mfg. Co. v. Technical Tape Corp.*, 23 Misc.2d 671, 192 N.Y.S.2d 102 (1959), aff'd 15 A.D.2d 960, 226 N.Y.S.2d 1021 (1962).

Courts have also had to consider this balancing of interests in deciding the extent of injunctive relief to be applied to compensate for a misappropriation of a trade secret. In *Shellmar Products Co. v. Allen-Qualley Co.*, 87 F.2d 104 (7th Cir. 1937), the defendant breached a fiduciary duty in using a trade secret and was enjoined from using the trade secret even after it was publicly disclosed in a patent, even though that put the defendant at a perpetual disadvantage as compared to members of the public. That case and the more-often followed case, *Conmar Products Corp. v. Universal Slide Fastener Co., Inc.*, 172 F.2d 150 (2d Cir. 1949), are widely known for their divergent views. Here the court held that once the patent issued, injunctive relief was inappropriate and that one who acquires a trade secret innocently not only cannot be enjoined but is not subject to damages.

> "The act of inducing the breach is the wrong, and the inducer's ignorance is an excuse only because one is not ordinarily held liable for consequences which one could not have anticipated. Although it is proper to prevent any continued use of the secret after the inducer has learned of the breach, the remedies must not invade the inducer's immunity over the period while he was ignorant. They may invade it, if the inducer has changed his position on the faith of his ignorance." 172 F.2d 150, 156

In *Integrated Cash Management Services, Inc. and Cash Management Corporation v. Digital Transactions, Inc.*, 960 F.2d 171 (2d Cir. 1990), the court considered a contemporary trade secret issue. Former employees, who had signed non-disclosure agreements, developed and marketed competing generic utility programs. The manner in which the programs interacted (as opposed to the programs themselves) was not generally known outside the plaintiff company (ICM), which had taken significant steps to protect the architecture of the program and had required employees to sign detailed non-disclosure agreements. The program had been expensive to develop. The program could not be easily developed without knowing the underlying "architecture". The appellate court sustained the trial court's decision to grant an injunction preventing the former employees from using trade secrets to develop new programs for six months, offsetting any lead-time they may have obtained over their former employer by breaching the non-disclosure provisions. As for the actual programs of the former employer--e.g. object code taken on disks--they were perpetually enjoined from marketing the exact object code, which prevented them from actually selling the identical product in competition with the former employer.

In *S.I. Handling Systems v. Heisley*, supra, the court vacated a preliminary injunction against former employees, finding that certain business information, though valuable to the former employer, was not a trade secret because it had not in fact been known by the employer. The court also found that certain information, though valuable to the former employer, was based on acquired skills of the employee and, therefore, its use could not be enjoined.

> "We do not question the district court's factual finding that appellants misappropriated information that was developed with SI's resources (Cite as:) and, under the terms of their employment contracts, was SI's property. We cannot, however, agree with the district court's unsupported legal conclusion that this property "is presumably a trade secret as well". It is difficult to understand how information that was never revealed to SI can be its "trade secret" in the sense of information that is important in the conduct of one's business. In the event that appellants could patent this development, or are entitled to trade secret or some other type of proprietary protection, then under Pennsylvania law SI may be entitled to "shop rights"--i.e., a free license to use this technology. SI is not without remedies for breach of the employment contract and may have other causes of action as well; the trade secret injunction, however, is simply not the remedy for all employee breaches of faith. We believe that these remedies would be preferable to issuing an injunction that may result in appellants' system never reaching the market at all." 753 F.2d 1244, 1259

The cases before *Rockwell* show that the courts have the most difficulty in redressing trade secret misappropriation without impeding public policy and competition. In those terms, the application of *Rockwell* on remand and in other cases should be watched.

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PIPA Database Coversheet

(1) Title : Licensing Strategies for Protecting Intellectual Property Rights in Computer Software

(2) Date : August 23, 1991

(3) Source

1) Source : PIPA
2) Group : American
3) Committee: Patent Licensing Law and Practice

(4) Author(s)

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(5) Keyword(s) : Computer software licenses; copyright misuse; shrink wrap

(6) Statutory Provision(s) : Generally Titles 35 and 17 of the United States Code

(7) Abstract

The forms of intellectual property protection for computer software and their limitations are discussed. Software licensing considerations are presented in detail. The topics of software "shrink wrap" licenses and copyright misuse also are discussed.

LICENSING STRATEGIES FOR PROTECTING INTELLECTUAL PROPERTY RIGHTS IN COMPUTER SOFTWARE

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PREFACE

Good Morning, Ladies and Gentlemen! A special greeting to our guests from Japan. Since the prepared text of this paper cannot be deviated from for various reasons, I will confess that I am writing this introduction on a beautiful Sunday morning overlooking the spectacular Ogunquit coastline in the state of Maine. While Rochester is indeed a special city, let me also recommend Maine to you, preferably in the summertime. It is perhaps not so lovely as viewing Mt. Fuji from Ohito, but a delightful place nevertheless.

You may have surmised from the title of this paper that we will be spending the next half hour or so discussing computer software licenses. Before we begin, I would like to remind you that while we patent-lawyers-turned-intellectual-property-lawyers now warmly embrace computer software as coming within our area of expertise, this has not always been the case. In fact, many of the software protection theories and licensing strategies were developed by a strange fraternity of lawyers loosely referred to as "computer lawyers." Few of these lawyers were active, or even inactive, members of the patent bar. In some respects, this explains what is, in my view, the high level of creativity that has been brought to the field of computer software law. It also explains in part why patents, for now, rank a distant third in the types of intellectual property relied upon to protect computer software.

INTRODUCTION

In 1982, Roger Milgrim, one of the preeminent authorities on U.S. intellectual property law, commented in a computer software seminar: "We have a new technology; we do not necessarily have sufficiently developed law which is pinpointed to take care of it." Unfortunately, almost ten years later this statement is still true. We continue to struggle with protecting computer software using traditional forms of intellectual property. Although sui generus protection for computer software continues to receive much consideration, particularly in Europe, we are for now constrained to use a patchwork protection scheme for computer software.

This paper will consider briefly the various forms of protection for computer software and the limitations of each form, and then address in some detail issues to consider in drafting creative software licenses to maximize protection for the software owner. The topics of copyright misuse and shrink wrap licenses also will be considered.

FORMS OF COMPUTER SOFTWARE PROTECTION

There are four basic forms of protection for computer software in the United States: copyright, trade secret, patent, and contract. One could argue that the latter form, contract, is not a distinct form of protection at all, but rather simply a means for enforcing the rights established by the other forms of protection. However, with the skillful drafting of computer software contracts, it may be possible to provide protection for software greater than that offered by any combination of the other forms. We will consider later whether such contract rights are

enforceable, and their possible negative effect on the other forms of protection. In any event, virtually every software supplier utilizes contracts, or more appropriately, licenses, in the distribution of software.

As you probably are aware, copyright is the most commonly relied upon form of protection for enforcing software rights in the American courts, and consequently, a significant body of law has developed in this area. Unfortunately for software owners, the law does not seem to be particularly well settled and the courts continue to change and refine their views on the scope of copyright protection for software. Adding to the problem is the lack of consistency provided by a single review court which, for example, the Court of Appeals of the Federal Circuit has brought to the patent laws. However, most troublesome for the software owner is the copying requirement of copyright law. Although copying can be established by a showing of access plus substantial similarity to the copyrighted work, the development of so-called "clean room" reverse-engineering techniques may operate to isolate software pirates from the copyright laws.

While patents are not constrained by a copying requirement, they nevertheless have several other limitations, not the least of which is uncertainty as to the patentability of computer software. Expense, procedural complexity, and time delays are other disadvantages to using patents for protecting software. The main benefits of patents are access to a consistent, well-established body of law, a known scope of protection as defined in the patent claims, and elimination of independent development as a potential defense to infringement. Notwithstanding these ad-

vantages, patents to date have not attained a great deal of acceptance in the software community.

Trade secrets offer the advantages of compatibility with copyrights, a wide scope of protection, a lack of any appreciable legal expense in obtaining protection, and a judicial receptiveness to trade secret claims. The disadvantages to trade secret protection are the cumbersome procedures required to maintain trade secrets in commercialized software and the attendant vulnerability to loss through independent discovery or unrestricted disclosure. Next to copyrights, trade secrets are the most frequently employed form of intellectual property protection for computer software.

CONTRACTS

Software licenses are generally viewed as merely the vehicle through which rights under traditional forms of software protection are granted to an end user of the software. Indeed, most software licenses delineate the scope of the rights granted under the owner's copyright and contain requisite limits on disclosure necessary to maintain the owner's trade secret rights.

In addition, however, software licenses can provide protection supplemental to that afforded by patents, copyrights and trade secrets. For example, software license for computer programs delivered in object code frequently contain a restriction against decompilation or reverse engineering. Some software licenses prohibit users from developing software which performs functions similar to the licensed software. A number of other, more subtle protections can be included in a well-drafted software license. Provided these restrictions can pass scrutiny under

traditional rule of reason antitrust analysis, and provided misuse problems as later discussed in this paper can be avoided, such contract restrictions can contribute significantly to a software protection program.

In developing a licensing strategy, there are a number of issues to be considered from the software owner's, or licensor's, perspective. These include: i) the scope of use, ii) ownership of the computer software, iii) the allocation of ownership of modifications made by the licensee, iv) source code access, v) confidentiality, vi) remedies for breach, and vii) limits on alienation.

Clearly the most important issue from the licensor's perspective is the scope of use the licensee may make of the licensed software. The main objective of the licensor is to prevent lost revenue opportunities by ensuring (a) that license fees are matched to the software usage foreseen by the licensor at the time of contracting and (b) appropriate additional fees are obtained where the scope of software usage exceeds the usage originally envisioned. Additionally, the licensor will want to ensure that inappropriate parties (e.g., competitors) do not obtain improper access to software or intellectual property as a result of an overly permissive license scope.

Ownership of the computer software and the copies provided to the licensee is an extremely important issue because the "first sale doctrine" can operate to limit the licensor's ability to restrict the licensee's activities with respect to the licensed computer software. Indeed, if the licensee is the <u>owner</u> of a copy of the computer software, any trade secrets embodied in

the copy may be lost to the extent they are subject to discovery by reverse engineering. Accordingly, the licensor should secure its interests by retaining title to all copies of the software delivered to the licensee as well as all copies made by the licensee under authorization of the licensor.

Another important issue is the licensor's access to and ability to control licensee modifications to the licensed software. The licensor will want to maximize the value of modifications by retaining the opportunity to market them or incorporate them into other software or products without requirement of payments or other obligations to the licensee and will want to eliminate the possibility of a claim by the licensee that modifications of the licensor's software require the licensee's consent to the extent they may involve modification of items created by or with the licensee. The licensor should seek to minimize the risk that the licensee's ownership (or joint ownership) of modifications embodying the licensor's intellectual property may inadvertently provide the licensee with unlimited rights to use such intellectual property and/or unlimited opportunity to provide it to third parties.

Another important licensing issue is the degree and extent to which the licensee is to be provided with access to source code. The licensor's main objective should be the protection of proprietary rights embodied in source code by limiting access only to those persons necessary for maintenance and enhancement of the software. The most advantageous position for the licensor is simply to provide that the software will be licensed only in object code form and that source code will not be

released under any circumstances. When this is not possible and it becomes necessary to establish a source code escrow arrangement, the licensor should seek to ensure maximum opportunity to challenge or prevent source code release by the escrow agent for the same reasons that it originally seeks to prevent source code delivery to the licensee. As a alternative to a source code escrow agreement, the licensor may want to explore providing source code to the licensee under the terms of the license agreement for an additional license fee to compensate the licensor for the risks and burdens associated with releasing source code.

The confidentiality issue is particularly important in view of the licensor's trade secret interests. The objective of the licensor should be to protect the value of its intellectual property by ensuring that the licensee does not provide broad access to proprietary information which could be used by others to the licensor's detriment, and to prevent third parties from obtaining a "free ride" through use of proprietary information on which the licensor has expended considerable resources for development.

The important issue of remedies should not be overlooked by the licensor. The licensor needs to retain the right to take swift and decisive action in the event of non-payment, and upon breach by the licensee of the license grant provisions or any of the other provisions of the license agreement protecting the licensor's proprietary rights in its software and related items. Typical license provisions empower the licensor with a right to terminate in the event of a breach by the licensee which is not cured within a short (e.g., 30 days) notice period.

Finally, the licensor should carefully address the issue of alienation. The licensor will want to ensure that the agreement prevents assignment of the license to an entity from which higher license and maintenance fees could otherwise have been obtained because of greater software usage (one way to reduce this risk is to tie the license fee to the licensee's hardware configuration or some other usage-related standard). The licensor will also want to make sure that the licensee prevents circumvention of anti-assignment provisions by the licensee's sale of its stock to a third party (e.g., by providing that a change in control of the licensee constitutes a prohibited assignment).

MISUSE CONSIDERATIONS

The potential adverse effect of restrictive covenants in software licenses must be considered in light of a recent decision which applied the concept of copyright misuse to deny relief to the copyright owner. The U.S. Court of Appeals for the Fourth Circuit held in Lasercomb America, Inc. v. Reynolds[1], that a ninety-nine year noncompete provision in a software license constituted copyright misuse because the restriction extended beyond the scope of the copyright.

While misuse has been available as a defense in patent infringement suits for many years,[2] Lasercomb appears to be the first application of misuse concepts in the area of software copyrights. The decision has been sharply criticized because of

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[1] 911 F2d 970 (4th Cir. 1990)

[2] Morton Salt Co. v. G.S. Supplier Co. 314 U.S. 488 (1942).

the inherent distinction between patents and copyrights and the difficulty of determining misuse in areas, such as computer programs, where the scope of protection has not been clearly defined. For example, the courts have differing views concerning the extent to which the structure, sequence, and organization of computer software is subject to copyright protection.[3] A license provision which places a restriction on the use of a computer program, including its structure, sequence and organization, could be deemed by a court to exceed the scope of copyright protection and thus lead the court to arrive at a finding of copyright misuse.

It could be argued that while the noncompete provision in Lasercomb may have exceeded the scope of copyright protection, trade secret rights in the software may well have supported such a restriction, though perhaps for a term somewhat less than ninety-nine years. By way of analogy, consider the frequently used combination patent and know how license where it is permissible, within limits, to extract royalties beyond the life of the patents based upon use of the know how. The Fourth Circuit avoided consideration of this issue by accepting the findings of the lower court, erroneous in my view,[4] that any trade secret misappropriation claims were preempted by the Copyright Act.

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[3] Contrast Whelan Associates, Inc. v. Jaslow Dental Laboratory, Inc., 797 F.2d 1222 (3rd Cir. 1986) with Plains Cotton Coop Association v. Good Pasture Computer Service, Inc. 807 F.2d 1256 (5th Cir.).

[4] See e.g., GCA Corp. v. Chance, 217 U.S.P.Q. 718 (N.D. Cal. 1982).

The real problem with the license restriction in Lasercomb is that it very likely would not have passed muster under an anti-trust rule of reason analysis. The ninety-nine year duration of the noncompete provision was simply too long.

While we all should be mindful of Lasercomb in drafting software licenses, it is not necessary to abandon use of all restrictive covenants which might be deemed to extend beyond the scope of copyright protection. It would seem that a better approach is to continue use of restrictive covenants as in the past but with perhaps a more careful consideration of reasonableness under traditional anti-trust analysis. It also would be prudent to clearly delineate restrictive covenants which are based upon trade secrets by providing, for example, that they expire when the licensed trade secrets cease to be protectable.

SHRINK WRAP LICENSES

Before we close, I would like to comment briefly on the status of so called "shrink wrap" licenses in the United States. As you know, "shrink wrap" licenses are used in mass marketed software, and purport to obtain acceptance to license terms and conditions upon the opening of the software package by the consumer.

Many of you are aware of the decision in Vault Corp. v. Quaid Software Ltd.,[5] which held that a Louisiana state statute regarding the enforceability of "shrink wrap" licenses was preempted by the Federal Copyright Act. The lower court had held that absent the provision of the statute, the shrink wrap license

[5] 847 F.2d 255 (5th Cir. 1988).

was an adhesion contract and thus otherwise enforceable. It is important to note that the Quaid decision did not address the enforceability per se of shrink wrap licenses; in many instances these licenses are enforceable contracts even in the absence of a statute specifically dealing with their enforceability.

Under a Uniform Commercial Code analysis of a contract, the key enforceability issue is whether the contract contains any unconscionable provision. The determination of whether or not a provision is unconscionable turns upon whether it is overly one-sided under the circumstances existing at the time of the making of the contract in light of the commercial background of the transaction. If the transaction is between two parties knowledgeable in computer terminology, a shrink wrap license with clear and conspicuous language in all probability will be enforceable.

CONCLUSION

Software licenses can be a very powerful tool for enforcing and protecting traditional forms of intellectual property rights for computer software. Additionally, software licenses can serve as an complementary form of protection to better ensure the software owner's ability to exploit his rights to the fullest extent.

Thank you for your kind and polite attention.

(1) Title: Jury Trial for Intellectual Property Right

(2) Date: October 1991 (22nd Rochester)

(3) Source

1) Source:	PIPA
2) Group :	JAPAN
3) Committee:	3

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(5) Key words: Jury Trial, Intellectual Property, Patent Infringement

(6) Abstract:

Intellectual property cases demanding jury trials have increased in recent years. The authors reviewed selected jury trial cases and studied how trial and appellate judges viewed the verdicts in those cases. Our study shows that the jury verdicts, even though embracing some problems, are much fairer than the authors have expected.

I. Introduction

In recent years, there has been a substantial increase in the number of intellectual property litigations in which a jury trial is demanded as shown in Fig. 1. However, some professional journals and reports raise the inappropriateness of jury trial for intellectual property cases. Some of their articles point out the potentially adverse influence of jurors' prejudice to the verdict. In this connection, Litigation Sciences, Inc. reports an interesting result of its survey conducted to collect individual judgments of local inhabitants in four geographical areas. Each recipient of the questionnaire was asked to decide a same case of hypothetical patent infringement between two different groups of parties, i.e., one group consisting of an American company, plaintiff, and a Japanese company, defendant, and the other group consisting of two American companies. Table 1 shows the result that in the group involving a Japanese company as Defendant, 52% of the answerers were in favor of Plaintiff. Their support to Plaintiff reduced, however, to 33% in the group involving an American company as Defendant. In the latter scenario, however, there was an increase in the answer of "Even" or "Difficult" to understand the case.

Obviously, these results are based on the hypothetical scenario. For comparison, this report discusses actual court cases to formulate the general trend.

II. Searches for Cases

Initial search was conducted using the West Law's FIP-CS, a database for intellectual property litigations. The search was made with a key word "JURY TRIAL" for the past five years. As a result, 96 cases appeared on the hit list.

These 96 cases were then subject to selection in view of whether they were jury trials and appealed to the appellate

courts. As a result, 29 cases were left as being of interest. And further, 2 cases involving Japanese companies were added to these 29 cases. These two additional cases were learned from journals.

With respect to these 31 cases, review was made to learn how the jury verdicts were received by trial courts and appellate courts. For cases in which verdicts were not sustained by the trial courts or appellate courts, further reading was made through the United States Patent Quarterlies (USPQ).

III. Results

Table 2 compares the conclusions of the 31 cases at each level of the jury, the trial court and the appellate court. Symbol "o" denotes the verdict in favor of plaintiff, "x" denotes one in favor of defendant and "-" denotes no issue on the verdict. The cases reviewed were classified into 6 types which are defined as follows.

A: The verdict was denied by the trial court (namely, JNOV was accepted) but affirmed by the appellate court.

B: The verdict was affirmed by the trial court but denied by the appellate court.

C: The verdict was denied by both of the trial and appellate courts.

D: The verdict was affirmed by both of the trial and appellate courts.

E: The verdict was affirmed by the trial court and no issue was found on the verdict by the appellate court.

Table 2 also indicates the ratio of each type to the entire cases studied for this report. The observations were as follows.

a) Type C (wherein the verdict was denied by the trial and appellate courts) accounts for 6% only.

b) Types A, D and E (wherein the verdict was finally affirmed) accounts for 81%, a dominant group.

c) Type A (wherein the verdict was denied by the trial court but affirmed by the appellate court) accounts for 13% while Type C (wherein the verdict was denied by both of the trial and appellate courts) accounts for 6%. It is noted that the former is more frequent than the latter.

d) Types A and B (wherein the trial court decision was denied by the appellate court) account for 26%.

Among these points, it was noticed that the number of Type A cases was much larger than that was expected, wherein the judgment non obstante veredicto (JNOV) was denied by the appellate court. It can be construed that even in the case where the trial court erred in admitting the motion for JNOV, the jury was generally fair in its finding. However, there are a few cases in which the decisions of the appellate courts appear somewhat inappropriate.

Example 1 is a typical Type A case between two U.S. companies. Plaintiff, S Company, is doing business in lumber industry while Defendant, A Company, is engaging in computer design business. Factual background of this case is as follows.

- Plaintiff (S Company) acquired a patent which relates to a lumbering method and improvements in lumbering

facilities. Plaintiff asked Defendant to develop a computer designs for the equipment and executed a contract.

- Thereafter, Defendant started providing other lumbering businesses with consulting services and offered to them the method and equipment which were substantially the same as patented ones.

- Plaintiff sued Defendant for patent infringement and a breach of contract.

With respect to patent infringement, the jury found the patent valid and infringed under the doctrine of equivalent. The trial judge, however, accepted the JNOV motion and decided that the patent is not infringed while admitting its validity. The case was appealed to the appellate court where the court affirmed the verdict to decide: "the patent is valid and infringement takes place."

There was a case involving a Japanese company in which technical comprehension for the issue of patent infringement seems to be inappropriate. However it is difficult to determine whether or not there exists the prejudice or biased perceptions in the verdict. Example 2 discusses this case.

The case discussed in Example 2 falls within the category of Type C. Plaintiff is an American company (V Company) and Defendant is a Japanese Company (J Company). V Company owns a patent relating to an apparatus for supplying a plurality of wire electrodes in an electric spark machine. V Company sued J Company for infringement of its patent.

In this case, the jurors found the patent valid and infringed. However, the trial judge admitted the JNOV motion and held that: "the patent is invalid. Even if it were valid, there would be no infringement of the patent." The appellate court supported the trial court decision and upheld "no

infringement is found and thus there is no need to consider the issue of validity."

An important technical feature of the Plaintiff's patent is an integral movement of a plurality of wire electrodes. To the contrary, Defendant's apparatus includes a mechanism in which a plurality of wire electrodes move under independent control. The jurors erred in appropriately construing this point of important technical difference.

There are Type B cases which account for 13%. In this group of cases, the verdicts were supported by the trial courts but denied by the appellate courts. It should be inappropriate to evaluate that the verdicts for these cases were wrong. Rather, it should be understood that the cases were very delicate resulting in contradictory judgment by the trial and the appellate courts. The verdicts should be evaluated as being fair and they should be considered closer to the category of Type A.

IV. Summary

To sum up the above discussion, the following conclusions can be made:

a) Jurors are usually in favor of Plaintiff and their verdicts are reasonably affirmed at the trial courts and/or appellate courts.

b) Patent litigation includes technical arguments. For litigators to each party, tremendous efforts are required to attain the understanding of the jurors.

c) U.S. attorneys often comment that being foreign companies would adversely affect the perceptions of jurors in areas where the influence of foreign industries is great or where access to foreign culture is rare. Anxiety for this point cannot be

swept away completely. However, we were not able to cover that point in this study.

This report discusses the jury system in the United States based on the results of the survey and study by the Japanese group. Naturally, US groups are more familiar with the jury system than we are. Any comments or opinions from the US groups would be highly appreciated, which would be reflected in our further study.

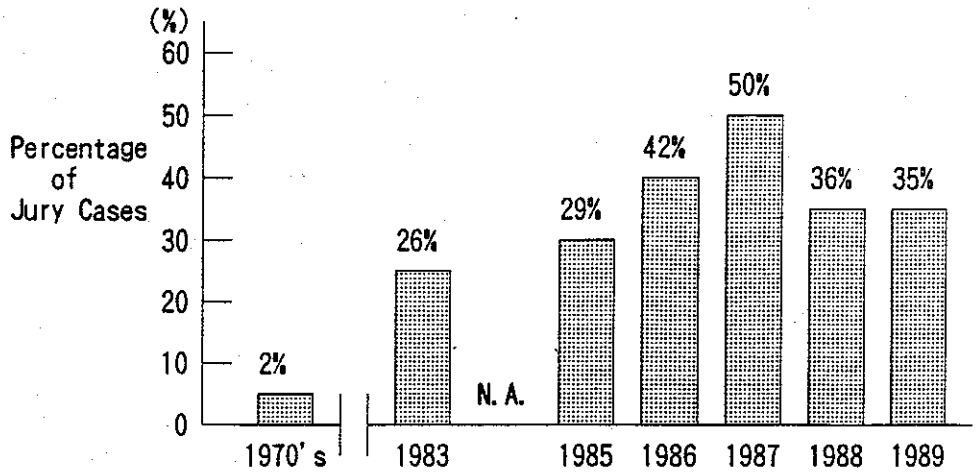


Fig-1 : Jury Cases on Patent and Design at District Court
(Reports of the Proceedinds of the Judicial Conference, 1989)

<Ref : Number of Cases>

Year		1983	1984	1985	1986	1987	1988	1989	1990
Terminated			995	N. A.	1088	1031	1122	1248	1124
Court Action			543	N. A.	654	640	775	864	800
Pending	Jury		23	N. A.	26	37	54	38	34
	Non-Jury		67	N. A.	64	52	54	67	62

Table-1 : Survey by Litigation Sciences, Inc.

Scenario (※1)		Group 1	Group 2
Plaintiff		American	American
Defendant		Japanese	American
Answer (Verdict)	in favor of Plaintiff(P)	52 %	33 %
	in favor of Defendant(D)	28 %	21 %
	even or difficult (E)	20 %	46 %

(※1) The scenario was identical for both groups except for the nationality of the defendant company.
(Patent Infringement)

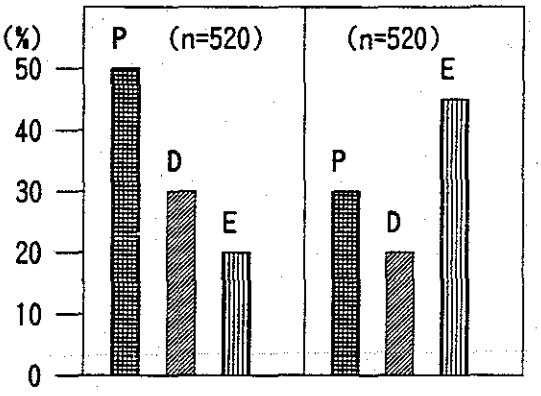


Table-2 : Transition of Decisions Relating to Jury's Verdicts

Case	Jury's Verdict	District Court	Court of Appeal	Type
1. U.S. v. JAPAN	○	×	○	A
2. U.S. v. JAPAN	○	×	×	C
3. U.S. v. JAPAN	○	×	○	A
4. U.S. v. JAPAN	○	○	×	B
5. U.S. v. U.S.	○	○	×	B
6. U.S. v. U.S.	○	×	○	A
7. U.S. v. U.S.	○	×	×	C
8. U.S. v. U.S.	○	○	×	B
9. U.S. v. U.S.	○	○	×	B
10. U.S. v. U.S.	○	×	○	A
11. U.S. v. U.S.	○	○	○	D
12. U.S. v. U.S.	○	○	--	E
13. U.S. v. U.S.	×	×	×	D
14. U.S. v. U.S.	×	×	×	D
15. U.S. v. U.S.	○	○	--	E
16. U.S. v. U.S.	○	○	○	D
17. U.S. v. U.S.	○	○	○	D
18. U.S. v. U.S.	○	○	--	E
19. U.S. v. U.S.	×	×	×	D
20. U.S. v. U.S.	×	×	×	D
21. U.S. v. U.S.	○	○	○	D
22. U.S. v. U.S.	○	○	○	D
23. U.S. v. U.S.	○	○	--	E
24. U.S. v. U.S.	○	○	○	D
25. U.S. v. U.S.	○	○	○	D
26. U.S. v. U.S.	×	×	--	E
27. U.S. v. U.S.	×	×	×	D
28. U.S. v. U.S.	○	○	○	D
29. U.S. v. U.S.	○	○	--	E
30. U.S. v. U.S.	○	○	○	D
31. U.S. v. U.S.	○	○	○	D

U.S.	U.S. Company
JAPAN	JAPANESE Company or related Company

○	in favor of plaintiff
×	in favor of defendant
--	no issue on Jury's verdict

A	Jury's verdict was denied by D.C., but affirmed by C.A.	(13%)
B	Jury's verdict was affirmed by D.C., but denied by C.A.	(13%)
C	Jury's verdict was denied by both of D.C. and C.A.	(6%)
D	Jury's verdict was affirmed by both of D.C. and C.A.	(49%)
E	Jury's verdict was affirmed by D.C. and not the issue at C.A.	(19%)

Fig-2 Percentage of Each Type

Type	Transition of Decisions	Percentage	Number
A	○→×→○	(13%)	4 cases
B	○→○→×	(13%)	4 cases
C	○→×→×	(6%)	2 cases
D	○→○→○ ×→×→×	(49%)	15 cases
E	○→○→-- ×→×→--	(19%)	6 cases

Example 1

Plaintiff : S Company (U.S.) --- Lumber Industry

Defendant : A Company (U.S.) --- Computer Design

Background: "S" is an owner of three patents for processes and apparatus for automated sawmills and veneer mills.
"A" was hired by S to do computer design work on these systems.
"A" began to offer consulting services to other sawmills and veneer mills, adopting and installing processes and apparatus which were the same or substantially the same as those that had been developed for "S".
"S" sued "A".

Result :

Item	Jury's Verdict	Decision of District Court	Decision of Court of Appeal
Validity	Valid	Valid	Valid
Infringement	Yes (under the doctrine of equivalent)	No (JNOV Granted)	Yes

(Contract issue is not shown.)

<Remarks>

Subject Patent :

A method of processing a log to obtain the optimum amount of wood products of a selected grade therefrom, comprising the steps of,

- posisioning the log------,
- scanning the lod to determine its dimension------,
- plotting in a data processing equipment at least one planar profile of the dimensions------,
- computing at least the center axis of the widest parallelogram------,
- repositioning the log------.

Discussion:

Whether or not the trapezoid is equivalent to the parallelogram ?

(Every parallelogram is a trapezoid, not all trapezoids are parallelogram.)

Example 2

Plaintiff : V Company (U.S.) --- Owner of the patent relating to the process of electrical discharge machining

Defendant : J Company (Japan) --- Electrical discharge machine manufacturer

Background: "V" is an owner of a patent titled "Multiple Wire Electrode Feed Mechanism for Electroerosion Machine" "J" developed and manufactured the multiwire electro-erosion devices in Japan and imported them into the U.S. "V" sued "J".

Result :

Item	Jury's Verdict	Decision of District Court	Decision of Court of Appeal
Validity	Valid	Invalid (JNOV Granted)	No need to address
Infringement	Yes	No (JNOV Granted)	No

<Remarks>

Subject Patent :

In an electroerosion machine which cuts a metal by means of electrical discharge between an electrically conductive wire and metal, ----------, the improvement comprising;

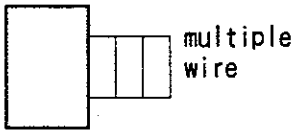
- a plurality of supply spools---, each of said supply spools having a wire continuously removed therefrom,
- a tension assembly receiving a wire from each of the supply spools,
- a cutting guide assembly receiving each of said wires and holding the wires parallel to each other-----.

Discussion:

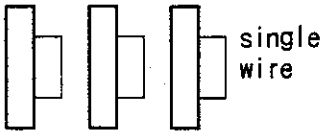
"J" device has a separate, individually operable tension controller and cutting guide assembly.
(Several single-wire machines are strung together.)

Does "assembly" mean a device in which all wires are operated by one set of controls or a device with a plurality of individually operable wires?

("V" patent)



("J" device)



1) Title: COMPARATIVE STUDY ON INDIRECT INFRINGEMENT IN JAPAN, U.S., AND EUROPE

2) Date: October 1991(22nd, Rochester)

3) Source:

1) : PIPA

2) : Group: Japan

3) : Committee:3

4) Authors:

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5) Keywords: Indirect Infringement, Contributory Infringement, Inducement.

6) Statutory Provisions: JPL 101, 35 USC 271, GPL 10, BPL 60, FPL 29 bis

7) Abstract:

In connection with indirect infringement, a summary was made of Japanese, U.S., and European legal provisions and the results tabled for quick reference. We also had a comparative study among Japan, US and Europe on indirect infringement, using two specific, hypothetical examples which was made by asking some patent experts in the respective countries for their opinions.

I. INTRODUCTION

The patent laws in many countries provide provisions to protect patent owners against so-called indirect infringement activities which is bound to be linked with an act of direct infringement. The purpose of such a provision is to ensure patent protection only in the case where the protection only for the direct infringement does not give sufficient patent protection to the patent holder

With regard to indirect infringement problems, since there have only been a small number of relevant cases, a variety of issues and points remain to be resolved and clarified. Consequently, one could easily assume that any given case might result in different outcomes in Japan, U.S, and Europe as to whether an infringement exists.

Under such circumstances, this study took a practical look at indirect infringement related provisions in the three countries, in the hope that it would enable useful comparisons.

Further, a comparative study of expert opinions which were made relating to hypothetical examples set up for their investigations, were carried out.

II. COUNTRY-BY-COUNTRY ANALYSIS OF LAWS IN MAJOR COUNTRIES

In order to ensure an easy comparison of indirect infringement related provisions in the U.S., Japan and EC countries, viz., Germany, the United Kingdom and France we have prepared the attached table "Table 1" regarding the following viewpoints. In so doing primarily reference was made to the article "INDIRECT INFRINGEMENT IN MAJOR COUNTRIES" published in ."PATENT MANAGEMENT" 1987, January, April and May (Vol. 37, Nos 1, 4 and 5)

1. Patent law provisions with regard to indirect infringement;
2. whether or not the presence of direct infringement is prerequisite for establishing liability for indirect infringement;
3. whether or not the presence of other use(s) is prerequisite for establishing liability for indirect infringement;
4. whether or not subjective intention, i.e., prior awareness of the existence of a patent, is a prerequisite for establishing liability for indirect infringement;
5. statutory provisions with regard to contributory and inducing infringement;

6. whether or not a sale of a set of components should constitute an indirect infringement without the same being finally assembled within the country in question.

From these comparisons it was ascertained that there is some difference from country to country in the following points: In the U.S. there can be no liability for indirect infringement in the absence of direct infringement (35 U.S.C. 271(b), (c)) whereas in EC countries these requirements are not required. The Japanese patent law does not require the existence of direct infringement and the dominant opinions in this country uphold this view, although some hold the opposite view. In Japan (JPL 101) the establishment of indirect infringement necessitates the fact that an accused component (articles) is used exclusively for the manufacture of the patented product or for the working of the patent invention, in other words, it has no other uses other than the patented uses. The U.S. has a corresponding exemption stipulated if a component in question should be considered a staple article or commodity of commerce. As for Germany and the United Kingdom the existence of other uses per se has no bearing on the potential liability for the infringement. Only in Japan does it not have to be determined whether a potential infringer has a subjective intention to infringe the patent whereas in the other four countries this requirement should also be met for establishment of indirect infringement. The question of inducement is addressed in some way or other in each country's statute and it is noteworthy that the U.S. patent law specifically provides that "whosoever actively induces infringement of a patent shall be be liable as an infringer" (U.S.C. 271(b). As for sales of a set of components, the U.S. extends the concepts of indirect infringement to cover the export of components overseas even if final assembly does not occur in the U.S. (35 U.S.C. 271(f)). In Japan there are two principles regarding liability for indirect infringement. The one specifically requires the presence of direct infringement (Dependent theory) and the other does not (Independent theory). Hence, acts of sending components of a patented device abroad for final assembly may or may not be held as infringing in Japan depending on which theory is to be applied. The German patent law states that the sale of the components of a combination patents to a domestic purchaser would constitute infringement while the export of the same would avoid infringement. The British provisions prohibits both local sale as well as export of a set of components. In France indirect infringement will be made out in as much as such proof is made that the act of assembly would not take place in France.

We should add, however, that the comparison, having been made above and summarized in Table-1, should not be understood to be comprehensive and are

oversimplified. It is intended to merely give a broad idea of the diversity of the legal rights applied.

III. RECENT CASE LAW IN JAPAN AND U.S. REGARDING INDIRECT INFRINGEMENT

In the following, a brief introduction of the recent court decisions are made in these countries in the hope it is of some interest.

1. Japanese Case Law

A couple of the Japanese indirect infringement related decisions are as follows. The arguments presented in these cases were almost exclusively directed to whether an accused product or step of a process was used exclusively for the manufacture of the patented product or for the working of the patented invention, which is stipulated as indirect infringement act in Section 101, Patent Law.

(1) Cases where the part or step of a process was not used such as being stated in the JPL 101.

1) "Replacement Lens" Case, Decision of the Supreme Court March 12, 1985 -Sho 58 (Oh)1224 -

The test to be applied was whether or not a replacement lens was adapted for use only in a patented camera.

2) "Drive Control Device" Case, Decision of the Osaka District Court September 8, 1988, -Sho 60(Wa) 2525 -

Discussed was whether a rotary drive control device found application only for performing a patented control method.

3) "Contact Lense" Case, Decision of the Tokyo Court of Appeals March 28, 1990 -Sho 63(Ne) 1820-

Whether cleaning agent for use in both soft contact lenses and hard oxygen permeable contact lenses could be deemed only for use in a patented method for getting rid of proteinaceous deposits on the soft contact lenses.

(2) Case where the prerequisite "to be used exclusively" was met.

1) "Hammer Head" Case, Decision of the Osaka District Court October 24, 1989, -Sho 60(Wa) 6851-

The issue is whether or not a hammer head could be considered only for use in patented rotary mace (Utility Model case). Incidentally, the question of the repair of the rotary mace was also addressed by the court since it was recognized that the hammer head would undergo wear or breakage.

2. U.S. court decisions

The following decisions are cited which addresses indirect infringement issues in the recent U.S. Court of Appeals, Federal Circuits. It should be stressed that these cases exemplify situations wherein a wide variety of issues were involved.

1) Porter, et al. v. Farmers Supply Service. Inc.: 229 USPQ 814(1986 CAFC)

The issue was whether replacing a worn-out disk, an element of the claimed combination of the harvester, should be characterized as "repair," which is permissible, or as "reconstruction," which is not.

2) Met-Coil Systems Corp. v. Korners Unlimited, Inc.,et al.: 231 USPQ 474 (1986 CAFC)

Discussed was whether the purchaser of a patented machine enjoyed an implied license with respect to the machine.

3) Preemtion Devices, Inc. v. Minnesota Mining & Manufacturing Co.:231 USPQ 297 (1986 CAFC)

The court discussed whether or not a part sold by a third party should be a "staple article" for substantial non-infringing use. The concept of a staple article appears essentially analogous to the Japanese counterpart setting forth indirect infringement of acts being supplying anything to be used "only" for the working of an invention.

4) Milton Hodosh v. Block Drug Co. Inc., : 4 USPQ 2d 1935 (1987 CAFC)

The case was primarily concerned with patent misuse in connection with indirect infringement issues.

5) Water Technologies Corp. v. Calco Ltd.: 7 USPQ 2d 1097 (1988 CAFC)

The question was whether or not an induced infringement should be affirmed.

From above decisions it was ascertained that there is a disparity in conclusions which came into light between the U.S. and Japan if the subject matter common to both cases is the same exhaustible thing, viz., a disk in the Porter case versus an impact plate in the Hammer head case. The differences in the fact situations do not, of course, allow us to conduct a complete comparison between two cases. Nevertheless, such differences might be attributable to those provisions concerning indirect infringement acts. Hence, we have tried to make it clear by interviewing with local patent experts in all of the countries involved and questions based on two hypothetical examples.

IV. OPINIONS RENDERED BY EXPERTS IN MAJOR COUNTRIES

These examples were such as to include chemical [Case-1] and mechanical fields [Case-2], respectively. The examples are set out in full for reference in Appendix [2] as Case-1 and Appendix [3] as Case-2, respectively. For each case it was desired to obtain, as long as it is possible, a plurality of opinions in each country , yet circumstances prevented us from doing the same in some countries and instead we had to satisfy ourselves with a single local opinion.

1. [Case-1] Chemical Example:

(1) Summary of Question

1) hypothetical claim under study

"A method for removing proteinaceous deposits from soft-contact lenses comprising placing the soft-contact lenses having proteinaceous deposits in a aqueous solution comprising an effective amount of protease, for a period of time sufficient to clean the soft-contact lenses."

2) third party's action

A third party is making and selling tablets consisting of an effective cleaning amount of protease capable of getting rid of proteinaceous deposits both for cleaning soft-contact lenses and hard-contact lenses having oxygen permeability and on which the protein is deposited, said tablets being allowed to change into aqueous solution by adding distilled water thereto when used.

3) Questions:

Whether on the above facts the third party would be guilty for patent infringement in the following two additional situations:

1, the original claim is directed to the treatment of contact lenses in general and the claim in the granted patent is amended during prosecution, to limit the term contact lens to "soft contact lens".

2, the original claim directed to the treatment of contact lenses in general is maintained to patent grant although the specification describes only soft contact lenses and makes no mention of hard contact lenses.

2) Opinions rendered by Experts

As far as the third party's act of manufacturing of the cleaning tablets is concerned, there was an agreement among the patent attorneys that it does not amount to either direct or indirect infringement. Set forth below are therefore the views expressed by the attorneys as to how the sale or supply of tablets by the third party should be handled.

1) Japan

All of the experts agreed upon that both cases 1 and 2 would result in no infringement. The problem lies in whether or not the tablet is exclusively used for the working of the patent invention, more specifically, the criteria for infringement is whether or not the application not only for soft contact lenses but also for hard contact lenses may be sufficient to exempt the seller from claim infringement. The preponderant opinion was that there would be no infringement because the tablets can be applied to oxygen-permeating hard contact lenses as well.

2) United States

i) All of the experts felt that both cases fell into infringement. If the tablets are sold together with instructions that they are useful for cleaning soft contact lenses, this is held sufficient to constitute inducement to infringe the patent, in their opinion.

ii) In the absence of such instructions in both 1 and 2:

a) Case 1

If the claim was amended in order to avoid prior art, it was held unlikely that the situation would constitute indirect infringement. If, on the other hand, the amendment was filed only to satisfy requirements under 35 U.S.C. 112, i.e,. description requirements, cleaning of the hard contact lenses with oxygen permeability might be infringement under the Doctrine of Equivalents.

b) Case 2

Indirect infringement was deemed to occur if the use of the tablets to clean oxygen-permeable hard contact lenses are considered, under the Doctrine of Equivalents, within the scope of the claim of the patent.

3) United Kingdom

i) Case 1

All experts held in favor of infringement, by stating that,even if the tablets in question should be considered as a staple commercial product, directions or recommendation for use in the cleaning of soft contact lens, then it was felt indirect infringement occured. In the situation, however, wherein the accompanying instructions were directed only to clean oxygen-permeable hard contact lenses, then the expert were rather inclined for non-infringement.

ii) Case 2

All experts considered that the situation would constitute infringement. Indirect infringement occured, given instructions for infringement use. The situation regarding infringement would not differ if the tablets are staple commercial products. Given the instructions only for use in combination with hard lenses with oxygen permeability, it is possible that infringement would be affirmed if construed as Equivalents judging by the state of the art available at its filing date.

4) France

i) The experts held that the usage for soft contact lenses would result in infringement. While use for hard contact lenses would most probably be precluded from infringement charge, because it was the scope the applicant himself waived by way of claim amendments. It was indicated, however, if the amendment was not meant to overcome the prior art, infringement may occur.

ii) Use for soft lens cleaning was considered infringement. While it was admitted unpredictable whether oxygen permeable hard contact lenses were also subject to the scope of the patent claim.

5) Germany

In the presence of the instructions regarding how to use the tablets to clean soft contact lenses, both cases should amount to induced infringement. The conclusion will not change irrespective specific reference to hard contact lenses are not made in the patent specification.

The attached table, [TABLE 2] summarizes the conclusive points drawn by the experts involved.

2. [Case-2] Mechanical Example:

1) Summary of Question

1) Hypothetical invention and claim under study(see attached sheet of Drawing).

The invention relates to a rotary mace for removing unwanted projections from metal casting. The mace comprises a rotatable body (28), a plurality of arm blocks (1) pivotably supported around the periphery of the body and a plurality of percussion plates or hammer heads, each mounted removably to the respective arm block by way of an adapter (3). The invention resides in the above combination so that a worn out hammer head is independently replaceable.

2) third party's action.

A third party supplies hammer heads which are worn-out goods, for those who purchase a rotary mace from the patentee.

3) Questions:

Whether or not the third party's action would constitute indirect infringement in the following situations:

1. The claim is defined as citing a combination of hammer head, adapter and arm so that a hammer head that may be effected by wear is exchangeable.

2. The claim is defined as a combination of elements yet the invention resides in fact solely in the hammer head construction (such as its thorough-hole shape), so that it presents the most important feature of the invention.

2) Comments made by Experts

1) Japan

i) Question 1

There is diversity in conclusions

The rationale for infringement was that sales activity of the third party of the component exclusively destined for use in the patented device would fall within the scope of the patent. Arguments for non-infringement were that the hammer head, eventually usable for the purpose of a paper weight, was not worth separately patented and hence was excluded from a patent monopoly.

ii) Question 2: All rendered an opinion of infringement.

Failure of finding of non infringement would lead to substantial cut-off of the patent protection if the hammer head is in fact the heart of the invention. A further note was made that it would amount to even direct infringement.

2)United States

i) Question 1:

The experts concluded that the case would result in no infringement. The opinion was based on the deduction that replacing the hammer head is permissible repair, which is retained to the lawful purchaser of the rotary mace, so that the purchaser would not directly infringe the rotary mace patent. In the absence of direct infringement, there can be no liability for indirect infringement by supplying the hammer heads.

ii) Question 2: No infringement.

The grounds for non-infringement was indicated as being that it does not change the situation no matter how essential the hammer head may be to a patented combination as long as the purchaser is replacing a single, unpatented component of the patented invention.

3) United Kingdom

Question 1: All voted in the affirmative.

Anybody who purchases a patented article normally has an implied license to repair their article but, nevertheless, no one has the right to supply replacement parts for

a patented article. Further opinion was that, unless the hammer head are staple commercial goods and add nothing to the state of the art,indirect infringement was considered shown.

ii) Question 2: In this instance also all opted for infringement.

The answer is said identical to the answer to question 1 since there is infringement in any event, it does not seem that it makes much difference if the hammer head construction presents the most important feature. An unauthorized supplier would indirectly infringe if he had actual or constructive knowledge that the hammer heads would be used in any infringing manner. Since the hammer heads are the main elements claimed, their life-span or cost is said unlikely to affect finding of infringement.

4) France.

i) Question 1: it was held no infringement.

The analysis of non-infringement entails that the claim restrictively protected the combination of a plurality of elements. Thus, replacement of the part is merely a repair of the invention and would not amount to reconstruction. One of the experts went on to state that, even if the hammer head is the exact copy of that of the patented mace, the seller would not be considered committing a so-called act of unfair competition.

ii) Question 2: all attorneys felt that there is infringement.

It was advanced that, if the hammer head itself is patentable, the seller of the hammer heads would be held infringe the patent, because its structure is separately protected. On the other hand, prior to finding of infringement it must be firstly determined that inducement of infringement was acknowledged.

5) Federal Republic of Germany

i) Question 1: it was held infringement.

Purchaser`s replacement of worn out hammer heads by new ones is not deemed allowable because this is a reproduction rather than repair. The fact that the patented device was lawfully bought from the patent holder is irrelevant to solving the question.

ii) Question 2: it was held infringement.

The fact situation is identical to that set forth in Question 1 except that the hammer head becomes even more important feature. Put in another way, the fact that the invention may reside solely in the hammer head would have no bearing on the potential liability of the seller, in his opinion. Another expert interviewed was of the opinion that the sale of the hammer heads would constitute even direct infringement in such an instance. As is made in the Chemical case the main concepts expressed in connection with this case are likewise summarized and attached as Table-3.

3. Analysis of Comments made by Experts

1) Chemical Case

In this case answers were divided in opposite directions between Japan and rest of the countries concerned. Particular note should be made of the fact that Japanese experts thought that there would not exist indirect infringement not only in the case of "oxygen permeable hard contact lenses", but also in the case of "soft contact lenses". In contrast, in the U.S. as well as in Europe indirect infringement is said to be clearly occurring in the case of soft contact lens whereas as for hard oxygen permeable contact lens determination can not be made until the content of the amendments and prior art, in other words, the file wrapper estoppel has been taken into account.

In Japan whether or not the products in question have only one use is last resort for establishing indirect infringement as is provided in JPL 101 and hence the use of the product for a plurality of purposes will be enough to avoid infringement which is by no means relevant to the concept of file wrapper estoppel.

Due account should be taken that the U.S. and British attorneys pointed out that only two uses of the tablets formulated both for cleaning oxygen permeable hard contact lenses as well as for soft contact lenses are not enough to satisfy the requirement for "staple article".

In the U.S., United Kingdom and France, even a staple product can be deemed infringing matter if instructions are supplied for the product, which is also the case in Federal Republic of Germany.

2) Mechanical Case

In connection with Case 2 various pros and cons were advanced in each of the country concerned, The outcome revealed that there are considerable national differences in the way of arriving at the conclusion between Japan and the remaining countries.

As seen in the chemical case, while in Japan only decisive factor was whether the hammer head could be considered to meet the requirement that there be no other uses as prescribed in the patent law, all interviewed in the U.S. are in agreement in that a court would most likely characterize replacing the hammer heads as permissible "repair, ", and consequently, no indirect infringement on the part of the supplier. They also stressed that no unpatented component of a patented combination, no matter how important it may be, is protected by the patent.

German experts led us to assume that the hammer head should be considered to constitute essential means because it comprised an arrangement defined in the claim or it is inevitable for the proper function of the invention.

There is little authority or guidance on what is required by the phrase "essential element" in the United Kingdom as well as in France. Therefore no explicit definitions therefor were stated in these countries.

In summary, the requirement of "essential element" was discussed with particular reference to the invention and not much weight was given to the applicability of the product to the apparatus other than the patented machine.

3) Overview of the opinions

As noted above, in Japan the determination of indirect infringement depends solely on whether or not the products sold by the alleged infringer are used exclusively for the manufacture of the patented product or for the working of the patent process.

However, in the involved countries other than Japan, it appears that more specific considerations are given in resolving indirect infringement questions, such as whether file wrapper estoppel, whether replacement of a component subject to wear-out or breakage presents merely a "repair" or a "reconstruction", and whether the component should be considered to constitute a "means relating to an essential element". The criterion whether or not there is substantial non-infringing use set forth in the Japanese patent law is comparable to the "staple commercial product" requirement in various countries. However, it should be noted that the staple article exemption is applied rather restrictively as compared to the application of "to be used exclusively" set out in the Japanese patent law.

V. CONCLUSION

Indirect infringement related provisions are provided with a view of more completely ensuring patent protection. However, whether or not remedies can be granted to a patent holder is determinative on a country-to-country basis so that, in view of the statute diversity each country presently exhibits, it is hardly predictable, how a specific infringement action would be handled in each country. The practical advice to be drawn should be that, heavy reliance on the statutory provisions is ill-advised, and it may be far wiser to concentrate on claim drafting so that direct infringement can be made out. This is all the more important if one consider the situation in the United States where the rule is well settled that there is no liability for indirect infringement in the absence of direct infringement.

In view of increasingly trend toward a single world market, it is earnestly hoped that an international harmonization of the statutory provisions and uniform application thereof can be achieved so that an sufficient circle of umbrellas of protection for innovations will be afforded on a would-wide basis. In this regard, with Section 19 paragraph (4) of the WIPO Harmonization Draft Treaty, a constructive and valuable step along this line has now been taken.

EXPERTS COMMENTS ON CHEMICAL EXAMPLE

[TABLE-2]

Case	JAPAN	UNITED STATES	UNITED KINGDOM	FRANCE	GERMANY
CASE (a): [Claim amended] Original Claim: ...contact lenses Amended Claim: ...soft-contact lenses	[NO INFRINGEMENT] Both soft contact lenses and hard contact lenses are noninfringing	[INFRINGEMENT] · Oxygen permeable hard contact lenses can be held no infringement depending on the contents of the amendment. - effect of file wrapper estoppel	[INFRINGEMENT] · Oxygen permeable hard contact lenses can be held no infringement depending on the contents of the amendment. - effect of file wrapper estoppel	[INFRINGEMENT] · Oxygen permeable hard contact lenses can be held no infringement depending on the contents of the amendment. - effect of file wrapper estoppel	[INFRINGEMENT]
CASE (b): [No claim amendment] ...soft-contact lenses (No mention of hard contact lenses in the specification)	[NO INFRINGEMENT] Both soft contact lenses and hard contact lenses are no infringement	[INFRINGEMENT] · Decisive is whether oxygen permeable contact lens is equivalent to soft contact lens. If not, no liability for infringement Consideration of file wrapper estoppel necessary	[INFRINGEMENT] · Decisive is whether oxygen permeable contact lense is equivalent to soft contact lense. If not, no liability for infringement Consideratin should be given to file wrapper estoppel	[INFRINGEMENT] · Difficult to conclude on oxygen permeable hard contact lenses	[INFRINGEMENT]
Miscelleneous (Conditions to be met in reaching conclusions and others)	· Decisive creterion is whether "only one use"-requirement should be given. This case should be construed as being that the fact both hard and soft lenses are useful negates it, regardless of the existence of amendment. · Instructions teaching applicability for soft lens does not effect	· Instructions indicating usefullness in soft lenses may constitute inducement. · Use only for the two types of lenses is not enough for regard as staple goods.	· Main concern is existence of intentin ot infringe or inducement acts · Specially arranged tablets as in this case would not be held staple goods. · Staple goods can amount to infringement if accompanied by use instructions	· Without inducement or incitement to infringe staple goods can not be held infringement.	· It is clear that the tablets are also useable with oxgen permeable hard contact lenses. No corresponding mention in the patent specification does not affect this conclusion.

EXPERT COMMENTS ON MECHANICAL CASE

[TABLE-3]

Case	JAPAN	UNITED STATES	UNITED KINGDOM	FRANCE	GERMANY
CASE (i): Claim is defined to cite a combination of a hammer head, and an adapter and an arm.	[DIVIDED] Rationale for infringement: Use only for a patented device would be indirect infringement. Reasoning for the opposite: A separate part of a combination should not be afforded independant protection.	[NO INFRINGEMENT] Highly likely that hammer head represents just an element and the lawful purchaser is entitled to repair it. Absent direct infringement there is no indirect infringement.	[INFRINGEMENT] The lawful purchasers repair does not give third party automatica right to supply a replacement part. Prior knowledge of infringement as well as finding of no other noninfringement are necessary	[NO INFRINGEMENT] Supply of hammer heads, single element of the combination, does not amount to "reconstruction" but permissible "repair".	[INFRINGEMENT] Supply of the essential element, hammer head is deemed "reproduction". Supply to lawful purchaser of the patented device is irrelevant.
CASE (ii): The invention resides rather in the hammer head construction (e.g. its hole shape) and represents the most important feature	[INFRINGEMENT] Failure to find infringement would delimit patent protection or a decision of direct infringement is proper	[NO INFRINGEMENT] Patent was granted to a combination invention. Hammer head is only a single element. This remains true no matter how important the inventive concept is.	[INFRINGEMENT] The importance of the relevant element does not make much differene. Irrespective to cost of the parts and life-span, the knowledge of infringement on the part of suppliersuffices	[INFRINGEMENT] Hammer head is itself patentable. Additional requirement of inducement acivity is in need.	[INFRINGEMENT] Identical reasonings to Case-1 Tendency to find rather direct infringement
Miscellaneous (Conditions to be met in reaching conclusions and others)	Exclusive arguments directed to whether the hammer head is to be used exclusively for a single purpose. Further comment what should be given to the inventor in return for his disclosure.	Even in the presence of direct infringement, further requirements must be met: Hammer head has no other non infringing use and prior knowledge of direct infringement proved	Main issue was whether hammer head is essential element of the combination patent	In Case-1, The necessity of specific hammer head configuration exempts also the claim of unfair competition	Existence of other commercial use does not avoid indirect infringement if the seller knows that direct infringement would occur.

[Case-1]

THE HYPOTHETICAL INVENTION IN CHEMICAL FIELD

Patent:

CLAIM

"A method for removing proteinaceous deposits from soft-contact lenses comprising contacting soft-contact lenses having proteinaceous deposits for a period of time sufficient to clean the soft-contact lenses with an aqueous solution comprising an effective cleaning amount of protease"

Third Party:

Making and selling tablets consisting of an effective cleaning amount of protease capable of getting rid of proteinaceous deposits both for cleaning soft-contact lenses and hard-contact lenses having oxygen permeability on which the protein is deposited, said tablets being allowed to change into aqueous solution by adding distilled water thereto when used.

Our Question:

1. Under above-mentioned condition, it would be appreciated if you could give us your comment or opinion as to whether above performance by third party constitutes patent infringement in your country, taking account of indirect infringement as well.

2. In the case where there are the following situations, we would like to get your opinion or comment as to whether above action of the third party is liable for the patent infringement in your country.

case (a) Patentee made the following amendment during the examination procedure before Patent office.

1. The claim before amendment:

"A method for removing proteinaceous deposits from contact lenses comprising contacting contact lenses having proteinaceous deposits for a period of time sufficient to clean the contact lenses with an aqueous solution comprising an effective cleaning amount of protease"

2. The claim after amendment:

"A method for removing proteinaceous deposits from soft-contact lenses comprising contacting soft-contact lenses having proteinaceous deposits for a period of time sufficient to clean the soft-contact lenses with an aqueous solution comprising an effective cleaning amount of protease"

case (b) Patentee did not make any amendment, that is, the following claim has been retained from the filing date to the patent issue date.

"A method for removing proteinaceous deposits from soft-contact lenses comprising contacting soft-contact lenses having proteinaceous deposits for a period of time sufficient to clean the soft-contact lenses with an aqueous solution comprising an effective cleaning amount of protease"

In the patent specification thereof, soft-contact lenses alone are aimed, no mention of oxygen-permeating hard-contact lenses are made.

[Case-2]

THE HYPOTHETICAL INVENTION IN MECHANICAL FIELD

Patent:

Brief Description

The invention relates to a rotatable device for removing unwanted projections, such as flashings, gates and risers from metal castings. A so-called rotary mace used for this purpose includes a plurality of hammers. Each hammer is pivotably attached to a rotatable body called a hub by a retaining pin that is locked into the exterior of the same.

Referring firstly to FIG.4, an improved rotary mace comprises a rotatable body or hub (28). The hub (28) is mounted, usually keyed, on an axial shaft (27) driven by an electric motor of suitable power, not shown.

The hub (28) has a plurality of throughholes (27) at its outward end surface for receiving pins which pivotably support an arm block (1). A plurality of arm blocks (1) are thus distributed equidistant around the periphery of the hub (28) and each block has a hammer head, or impact plate (5) secured thereon via an adapter.

Referring now more particularly to FIGS 1 through 3, each hammer head (5) is formed to have a pair of parallel legs which straddle the adapter (3). Connection is achieved by a pin (25) extending through aligned boreholes (20, 21) in the legs and a throughhole (19) of the adapter (3).

Each of the arm blocks (1) comprises a recessed portion (2) defined by a pair of side walls (1a, 1b) and a bottom wall. The arm block (1) further comprises three notches (4-1, 4-2, 4-3) formed in the bottom wall into which a

convergent leg (17) of the adapter (3) fits. The arm block (1) has correspondingly first, second and third lateral boreholes (7-1, 7-2, 7-3) positioned in a manner to align with the throughholes (18) in the adapter (3) and into which a pin (22) may be inserted when the leg (17) is fit into the respective notch (4-1, 4-2, 4-3).

In the apparatus shown, when changing a worn out hammer head, it is only necessary to drive the pin (25) out of engagement with the adapter (3) and subsequently replace the worn out harmmer with a new one.

CLAIM

"A rotary mace for the removal of unwanted parts from casting comprising a hub (28) having an axis of rotation;
a hammer head (5);
an adaptor (3) for fixedly but removably supporting the hammer head (5); and
an arm block (1) for pivotably attaching said adapter (3) to the radially outward end surface of the hub (28)"

Our Question:

1. Will a seller of a replacement hammer head (5) to a purchaser be held liable for infringement of the above claim, if the purchaser initially had the rotary mace delivered by the patent owner?

2. Assume that the invention does not reside in the combination of a hammer head (5), an adaptor (3) and an arm block (1), removably but fixedly connected with each other so that a worn out hammer head is independently replaceable, and instead, the invention resides solely in the hammer head construction (e.g. its borehole configuration) so that the hammer head presents the most important feature of the inventive concept. What is your evaluation?

FIG-1

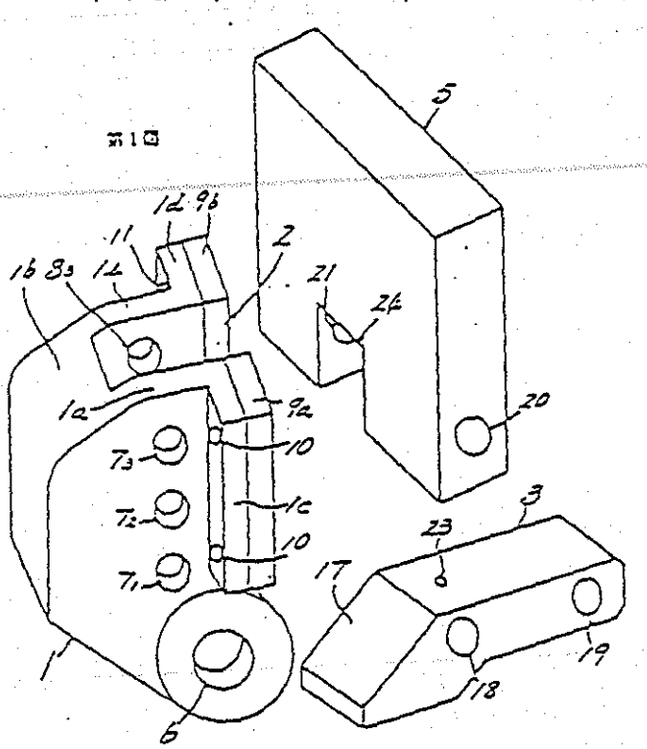


FIG-2

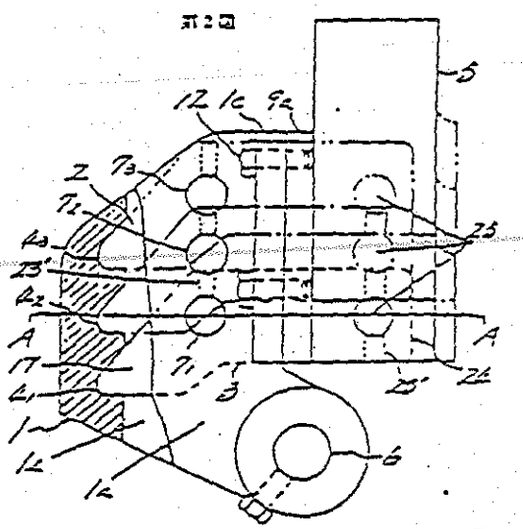


FIG-3

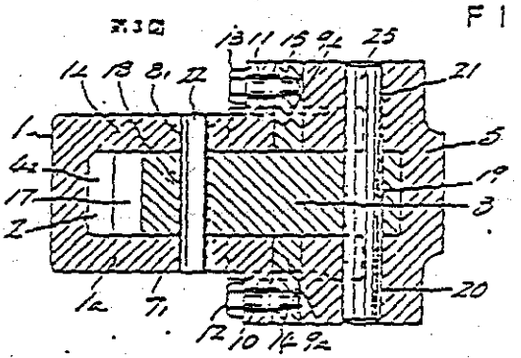
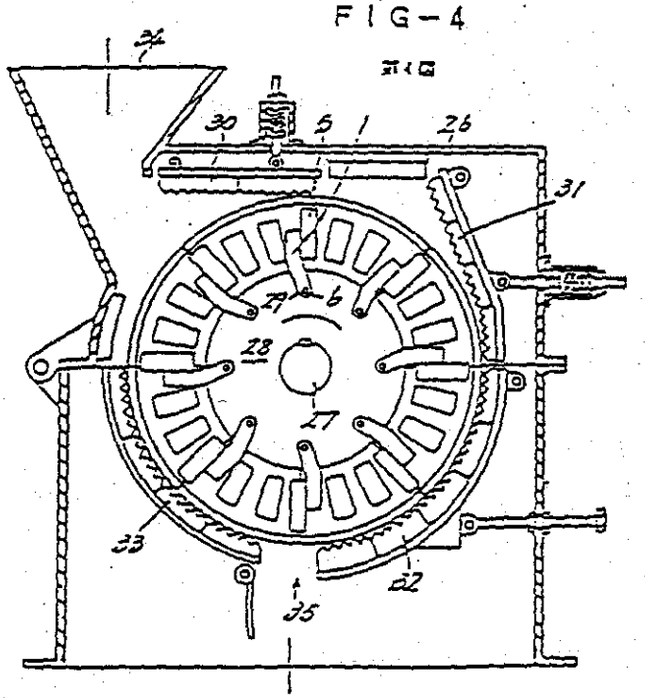


FIG-4



【TABLE-1 】

STATUTE COMPARISON OF MAJOR COUNTRIES

VIEWPOINTS	JAPAN	UNITED STATES	UNITED KINGDOM	FRANCE	GERMANY
1. PATENT LAW PROVISIONS	Section 101: Invention of a product acts of manufacturing etc., anything to be exclusively used for the manufacture of the product. Invention of a process: acts of manufacturing etc., anything for the working of the patented process.	Section 271:acts of indirect infringement (b) inducing infringement (c) contributory infringement (f) export or import acts of components or material - which would have been inducement if the acts had occured in U.S - which would have been contributry infringement in the U.S.	Section 60(2): The supply of the means, relating to an essential element of the invention when he knows, or it is obvi ous in the circumstances, that those means are suitable for putting the invention into effect in the U.K.	Section 29 bis The supply of means relating to essential element of the invention when he knows, or it is obvious in the circumstances that those means are suitable for putting the invention into effect in France.	Section 10(1), 1980 the offer or delivery of an essential element of the invention are forbidden Section 10(2) the offer or delivery of a staple good consitute indirect infringement only it the acts are made to induce to work the patented invention.
2. NEED FOR DIRECT INFRINGEMENT	Independent Principle: Indirect infringement does not require direct one → No commercial use or working of the invention abroad can create indirect infringement Dependent Principle: Direct Infringement is in definite need	. Prerequisite of Direct Infringement - exception: Section 271(f)(1)(2) No need for direct infringement within the U.S. · Likelihood of direct infringement will suffice. · Private non-commercial working of a patent may not avoid indirect infringement.	· Finding of indirect infringement does not require actual direct infringement in the U.K. provided that the place of either supply or offer to supply is in the U.K. · Judicial exemption of private and experimental use does not necessarily exclude liability for commercial inducing infringement.	· No need for existence of direct infringement · Supply of essential parts of the patent amounts to indirect infringement	· Indirect infringement occurs without direct infringement being established.
3. USE OTHER THAN THAT DESCRIBED IN PATENT	· No other use of the essential element to Patent would result in indirect Infringement · Econmical, commercial or practical other use may avoid finding of indirect infringement.	Section 271 (b) not required (c) required that the part is not staple goods	· The other uses not covered by the patent is not enough to avoid infringement. Section 60(3) · The supply of a staple commercial product are exempted from infringement unless the supply was made for the purpose of inducing infringement.	· Infringement exists if an essential element has no other use(s).	· No effect on finding of indirect infringement · It will be found liable for indirect infringement either -Predictability of direct infringement by third party -Awareness of the third party of the purpose or applicability of the accused components.

4. CONSIDERING SUBJECTIVE ELEMENT SUCH AS INTENTION	Irrelevant	Liability requires that the alleged infringer knew that the part was especially adapted for use in patented invention. Clear evidence of unawareness would avoid infringement claim, yet inference of awareness drawn if the part is not suitable for non-infringing use.	・The supplyer will be found liable if he had knowledge that the thing is suitable for use in an infringement of a patent or it would have been obvious in the circumstances to do so.	・ Infringement upheld if - an essential element objectively useful for the work of the invention and - the alleged infringer commits the act with a view to use such element for patent or it is obvious from the circumstances ・The supply of staple goods is illegal if accompanied by the incitement to infringe.	・It is felt insufficient that two findings are made: first, that the element is adapted for the work of the invention; second, it was intended for this ・The third-party customer must be aware of its use for patented invention or it must be obvious in the circumstances.
5. INDUCEMENT, INCITEMENT PROVISONS	Civil Code, Sectio 719 (Joint Tort Case) Jointly committed acts of practicing a invention, inducement or aids to infringe may be subject to charges. Criminal Code Section 60 Joint Commitment Section 61(1): Inducement Section 62 : Aids	Section 271(b) Active inducement activity to induce others to infringe a patent creates liability even if it come to a staple article (specifically covered by Patent Law provisions)	・No statutory provisions in the Patent Law ・U.K common law states that incitement would be tort and that aids is also the case if deemed tantamount to incitement.	Section 29(b): There is a statutory provision that provides for inducing infringement in the case of process patent	Defined in German Civil Code: Section 830: Inducement or support as joint commitment Section 840: Liability of each one in a tort committed in common Patent Law Section 10(2)
6. SALE OF COMPONENT SET (WHETHER FINAL ASSEMBLY INLAND REQUIRED FOR INFRINGEMENT)	Independent Principle: Indirect infringement exists Dependent Principle: Indirect Infringement occurs if completly assembled devices are to be imported.	Section 271(b)(2) Indirect infringement affirmed if the supplyer of components knew of a final assembly of a TV abroad, where the components were not suitable for substantial non-infringing use.	・Sale of the components in the U.K. is found to be indirect infringement ・The act of export does not itself constitute infringement. However, Section 60(1) indicates keeping of components prior export or intention of the work of the invention in the U.K. would be guilty of infringement.	Section 29 bis(1) The act of infringement can be established until proof is made that assembly would not occur on French territory. Also question on liability based on Section 29(a)	Section 10(1): ・Sales activity inland constitutes indirect infringement ・Export of the components does not itself constitute infringement

(1)Title : Patent Filing and Enforcement under the Community Patent Convention (CPC)

(2)Date : 10/91

(3)Source

①Source : PIPA

②Group : Japan

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(6)Statutory : Community Patent Convention, Protocol on Litigation

(7)Abstract: Various subjects expected to the effect of the CPC, which intends to create the system where a single patent is effective uniformly throughout the EC area, are discussed. The subjects are mainly concerning with features of application procedure and patent right, which involve cost comparison, transfer to EPC application, submission of translation, arrangement of judical institutions, infringement litigation, exhaustion of right and parallel import.

Patent Filing and Enforcement under the Community Patent Convention (CPC)

1. Outline of CPC

(1) Purpose

(1) The formal name of the Community Patent Convention is "The Convention for the European Patent for Common Market." It aims at "the free movement of goods, people, service and capital within the EC" which is the purpose of EC, in the aspects of Patent law. This intends to create a single patent to apply uniformly throughout the EC and settle the patent infringement claim by a single legal action procedure.

(2) Process to reach the conclusion of Community Patent Convention and its development in the future

CPC was signed by nine EC member states on December 15, 1975. However, ratification was not made by all of the EC member states that signed it, which is the conditions for entering into force. It now awaits ratification.

However, with the advancement of materialization of the unification of EC, there arose a growing tendency among EC to make a second attempt to make the Convention come to effect. On December 15, 1989, a Protocol on the revision of CPC and relaxation of the conditions for entry into force of it was signed.

Each member states is following to procedure for implementing CPC. It is expected that the CPC will enter into force as from January 1, 1993, in all EC member states excluding Denmark and Ireland, i.e. in England, France, Germany, Spain, Portuguese, Belgium, Netherland, Luxemburg, Italy and Greece.

(3) Institution to be established in implementing CPC

(i) Common Appeal Court, CAC

The Common Appeal Court will be established based on the Protocol on the Settlement of Litigation concerning the Infringement and Validity of Community Patent, Protocol on Litigation. The CAC will deal with claim for validity as the counter litigation against the infringement of Community Patent and infringement litigation and Provisional protection in case of the public disclosure of application.

(ii) Special departments for dealing with the Community Patent, i.e. Patent Administration Division and Revocation Division, will be set up in the European Patent Office, EPO. (Article 1, CPC)

2. Main Feature of CPC Application Procedure

(1) Application

Conventional EPC application shall apply to the application of Community Patent. (Article 1, CPC)

Application shall be made in English, German or French language.

(2) Designation of the states

In the case an applicant designates one of the States parties to CPC (England, France, Germany, Spain, Portuguese, Belgium, Netherlands, Luxemburg, Italy, Greece) in his applications, he is deemed to designate all of these States. (Article 3, CPC)

(3) Change of CPC application to EPC application

In the event an applicant does not wish the adaptation of Article 3 of CPC set out above, he may choose conventional EPC application by filing a statement based on Article 81 of CPC specifying the transitional provisions.

(4) Examination

CPC application is deemed as EPC application having special joint designation system. Therefore, its privilege is the same as that in EPC application.

(5) Relationship between earlier application and later application

(i) Relationship between CPC application and EPC application

Article 54(3) and (4) of EPC shall apply to the CPC application. The limitation of the scope of claim of the Community Patent shall be pronounced in respect of the Contracting States designated in the earlier EPC application as published. (Article 81(2), CPC)

(ii) Relationship between CPC application and national patent application in a Contracting State

Paragraph (i) shall apply. The limitation of the Community Patent shall be pronounced only in respect of the State designated in the earlier national patent application as published. (Article 36, CPC)

(6) Submitting translation after granting of patent

(i) The applicant shall, within three months from the date EPO designates, file a translation of the claims on which the grant of patent is based in one of the official languages of each of the Contracting States excluding England, Germany and France (i.e. Dutch, Italian, Portuguese, Spanish and, if Denmark ratifies CPC, Danish). (Article 29(1), CPC)

If the translations are not filed in due time, the CPC patent shall be deemed not to have been granted. Even in case the translations in the languages of some States are submitted, no remedy, such as changing to EPC application in order to be granted the patent only in respect of the States, shall be made.

(ii) The applicant shall file at EPO, within three months from the date of publication of the mention of the grant of the patent, translations of the text of the application which forms the basis for the grant. (Article 30(1), CPC)

There is a remedy in this case.

If the translations are not filed in due time, the proprietor may obtain a European patent for the Contracting States for which he has filed translations in due time, by notifying his intention to change to EPC applications within two months thereafter. (Article 30(6), CPC)

(7) Defective translation

(i) The applicant may file a corrected translation. The corrected translation shall not have any legal effect until the fee specified by EPO is paid. (Article 29(6), CPC, Article 8, Inplementing Regulations)

(ii) In case the translation of the claims is defective, any person who is using or has made a serious preparations for using an invention the use of which would not constitute infringement of the patent in the defective translation of the claims before the corrected translation takes effect, may continue such use without payment. (Article 29(7), CPC)

(8) EPC application made earlier than effectuation of CPC

EPC application made before CPC takes effect shall be deemed as the CPC application after the effectuation of CPC, in case all of the Contracting States have been designated. In case all of the Contracting States have not been designated, national patents only in respect of the designated States shall be granted.

Figure 1. shows the chart of CPC/EPC transition procedure.

3. How to Write the Text of Application and Claims

Examination of CPC application is made in the same manner as that of EPC application by EPO. It is because the difference of CPC application and EPC application is considered to be the way of designation of the States and CPC is deemed to be one of the conventional EPC application. Therefore, it is not necessary to change the way to write the text of application and claims.

However, there is the possibility that applicants must change how to write the claims a little in the future, which depends on the judgement of CAC, because CAC is the final court with respect to the infringement litigation.

4. Cost

As to the matter of cost, it can not be said definitely because of its flexibility, however, a local agent foresees as follows:

(i) As CPC application is one of EPC application, application fee, examination fee, search fee, maintenance fee and designation fee will be required. Many local agents forcast that CPC designation fee is three times as much as the EPC designation fee for one State, however, other estimate as six times. The other fees will be almost the same as those for EPC application.

(ii) In case the Community Patent is granted, the patent office administrating the Patent is required to be set up in only one of the Contracting States, not in all States. Therefore, the cost will be reduced.

(iii) Annual fee for maintaining the Community Patent is forcasted to be three to four times as much as that in one State.

(iv) Translations in eight languages shall be submitted to obtain a Community Patent. If it is taken into account, the cost for EPC application designating all Contract States and that for CPC application are almost the same. For translating English text into other official languages in Europe, it costs 24 to 36 yen per word under the present conditions.

(v) In case the number of designating States is smaller than three or four, CPC applications do not have an advantage in respect of the cost.

Figure 2. shows the chart of change of esitimated annual fee.

5. Right to the Community Patent

The right to the Community Patent and other feasures are as follows:

(1) Right conferred by the Community Patent

(i) As the right to prohibit direct use of the invention, the proprietor of the Community may prevent all third parties not having his consent from: (Article 25, CPC)

(In case of product) Making, offering, putting on the market or using a product which is the subject-matter of the Patent, or importing or stocking the product for these purposes;

(In case of process) Using a process which is the subject-matter of the Patent or offering the process for use within the territories of the Contracting States; and

(In case of process for production) Offering, putting on the market, using, or importing or stocking for these purposes the product obtained directly by a process which is the subject-matter of the Patent.

(ii) As the right to prohibit indirect use of the invention, the proprietor may prevent all three parties not having his consent from conducting following: (Article 26, CPC)

Supplying or offering to supply within the territories of the Contracting States a person, other than a party entitled to exploit the patent invention, with means, relating to an essential element of that invention, for putting it into effect therein.

(2) Limitation of the effects of the Community Patent

The rights conferred by a Community Patent shall not extend to: (Article 27, CPC)

(i) Acts done privately and for non-commercial purposes;

(ii) Acts done for experimental purposes relating to the subject-matter of the patented invention;

(iii) The extemporaneous preparation for individual cases in a pharmacy of a medicine in accordance with a medical prescription; and

(iv) The use on board vessels, aircraft or land vehicles of the countries other than the Contracting States of the patent invention, when such vessels, aircraft or land vehicles temporarily or accidentally enter the territory of Contracting States.

(3) Lapse

A Community Patent shall lapse at the end of the term laid down in EPC, and be effect for twenty years. (Article 50, CPC, Article 63, EPC)

(4) Annual fee

Annual fees shall be paid to EPO. (Article 48, CPC)

Where the proprietor files a written statement with EPO thathe is prepared to allow any person to use the invention, the annual fee shall be reduced. (Article 43, CPC)

(5) Right based on prior use

Any person who, if a national patent had been granted in respect of an invention, would have had, in one of the Contracting States, a right based on prior use of that invention, shall enjoy, in that State, the same right in respect of a Community Patent for the same invention. (Article 37, CPC)

(6) Compulsory licences

Any provision in the law of a Contracting State for the grant of compulsory licences in respect fo national patents shall be applicable to Community Patents. (Article 45, CPC)

Provided, however, that a compulsory licence may not be granted in respect of a Community Patent on the grond of lack or insufficiency of exploitation if the

product covered by the Patent, which is manufactured in a Contracting State, for which such a licence has been requested, in sufficient quantity to satisfy needs in the territory of that other Contracting State. (Article 46, CPC)

(7) Exhaustion of the rights conferred by the Community Patent

In case any third party imports a product covered by the Patent within the territories of the Contracting States after that product has been put on the market in one of these States by the proprietor of the Patent or with his express consent, such third party shall not be complained of infringement. (Article 28, CPC)

(8) Revocation of the Community Patent

An application for revocation may be filed as a counterclaim for revocation by a defendant in case disputes of infringement arise, which will be mentioned below.

Any person may file with EPO an application for revocation directly. (Article 55, CPC)

This application for revocation shall be examined by the Revocation Divisions. (Article 8, CPC)

In case the party has an objection to the decisions of the Revocation Divisions, he may appeal to the CAC. Article 106 to 109 of the EPC shall apply mutatis mutandis to this appeals procedure.

(9) Influence of unification of Germany

On October 3, 1990, Germany was unified. As from that date, East Germany has been incorporated in West Germany, and laws of West Germany has come to apply to the ex-territory of East Germany. Therefore, applications for Germany, EPC and PCT applications designating Germany and protection right granted based on these applications on and after October 3, 1990, are effective in the territories of unified Germany.

Consequenty, the effects of the Community Patent extend to the territory of former East Germany, as the natural course. However, bona fide use on and before July 1, 1990 (Unification of currency and amendment of patent law were carried out prior to the political unification) can become a right based on prior use in the territory of former East Germany in respect of the Community Patent.

6. Litigation concerning the infringement of Community Patent

The most important amendment of CPC in 1989 to the first draft in 1975 is that the validity and infringement of the Community Patents have come to be simultaneously examined.

Jurisdiction, procedure and applicable law regarding the litigation are provided in CPC and Protocal on Litigation CAC, the Community Appeal Court, has the extensive legal capacity.

(1) Community Patent Court

Tribunals of first and second instances, dealing with the disputes with respect to the Community Patents, are to be designated in appropriate numbers in the Contracting States, which is specified in Protocol on Litigation. The number of the first and the second is the same, and the names are specified in Annex (a), (b) to the Protocol on Litigation.

Table 1. shows the list of Community Patent Courts (3 pages)

(2) Common Appeal Court (CAC)

CAC, a Community patent appeal court, common to the Contracting States, will be established. CAC is an independent institution from EPO and European Court of Justice (ECJ). The place in which CAC is to be established has not yet decided. (Article 2 - 12, Protocol on Litigation)

(3) Jurisdiction

The Courts which exercise jurisdiction over litigation are chosen in the following order:

a) The courts in the Contracting States where the address or the place of business of the defendant exists.

b) In case the address or the place of business of the defendant is not in the Contracting States, the court in the Contracting States where the address or the place of business of the plaintiff exists.

c) In case any of the defendant and plaintiff does not have its address or place of business in any of the Contracitng States, the court in the State in which CAC is located.

d) Notwithstanding the above a)-c), the court in the Contracting State where the infringement occured. In this case, the court shall have the jurisdiction over only the infringement occured in the State. (Articles 66, 67, 68, CPC)

Each court shall examine the matter under the laws of the State in which the court is located.

Judgement of the court having jurisdiction in case of above a)-c) is effective in the whole territories of the Contracting States. Judgement in case of d) is effective only in the State the court has the jurisdiction.

(4) Revocation of the Community Patent

The defendant may file an application for revocation of the Patent as the counterclaim, against the infringement claims. The grounds for revocation shall be in accordance with those mentioned in Article 56(1) of CPC. (Article 19, Protocol on Litigation)

The examination shall be done by the court chosen by the proprietor against the infringement claim. (Article 15, Protocol on Litigation)

(5) Appeal

The appeal on the judgements of the Community patent courts of first instance are, as the most standard procedure, formally lodged with the Community patent courts of second instance having jurisdiction. However, in case the issues raised on appeal are concerning the infringement and validity of the Community Patent, CAC shall examine the issues and shall notify the Community patent courts of second instance of its judgement on the issues. The judgement given by CAC shall be final and binding. Furhter appeal can not be made. (Articles 22-28, Protocol on Litigation)

However, other issues contained in the litigation can be appealed to the national courts of third instance.

(6) Preliminary ruling

The judicial system of EC is an element enhancing the supernationality of EC, and the Preliminary Ruling System is one of the features.

According to Article 177 of EC Treaty, in case questions concerning the interpretation of EC Treaty and EC law are raised before a national court in the Contracting States, and if the court admits it necessary, the court brings the matter before the ECJ and makes the judgement pending until a decision is made by the ECJ. Such decision of ECJ is called "Preliminary Ruling." The preliminary ruling shall bind the examination of the given court.

The purpose of the preliminary ruling system is to unite the interpretation of law in the Contracting States. As to the litigation on the Community Patents, CAC shall have jurisdiction to give the preliminary rulings to the Community patent court. (Article 30, Litigation on Protocol)

(7) Judicial Institutions

Appeal on the judgement of the Community patent court of second instance shall be, in principle, lodged with CAC; provided, however, that in case the national law provides for the appeal to the national court of third instance, the final examination shall be made by the national court of third instance. (Article 30, Protocol on Litigation)

On the other hand, ECJ may give preliminary rulings to CAC and the court of third instance. (Article 2, Agreement relating to Community Patents)

Figure 3. shows the inter-relationship of judicial institutions dealing with the Community Patents.

7. Parallel Import

Questions on propriety of exercising patent rights against the parallel import depend on the interpretation and use of the provisions concerning the rights in Articles

25 and 26 of CPC and the provision concerning exhaustion in Article 28 of CPC, however, it is considered to be appropriate to interpret it in accordance with the judicial precedents of ECJ even if the judicial precedents are regarding the conventional national patents.

Following are the investigation on a basis of the type of parallel import.

Case-1

Q. P Company which is a proprietor of the Patent manufactures and sells the Product in (2) which is a State, and at the same time, P grants the licence to use the Patent to L Company in (1) which is another State. L exports the Product at lower price to (2) and injest the market of P. In this case, can P prohibt importing the Product to (2)?

A. No. Provisions for exhaustion of the right applies.

Case-2

Q. P Company which is a proprietor of the Patent or L Company which is a licensee of use of the Patent under the contract manufactures the Product in (1) which is a State, and a third party X purchases the Product and exports it to (2) which is another State. Can P prohibit importing the Product to (2)?

A. No. Provisions for exhaustion of the right applies.

(Centrafam vs. Sterling Drug case, ECJ 1974
(1) England, (2) Netherland)

Case-3

Q. Company Y which is a compulsory licensee or Company Z which has a right based on prior use of the invention manufactures the Product in (1) which is a State, and a third party X purchases the Product and exports it to (2) which is another State. In this case, Can P prohibit importing the Product to (2)?

A. Yes. Provision for exhaustion of the right does not apply.

(Pharmon BV vs. Hoechst case, EC Court 1984
(1) England, (2) Netherland)

Case-4

Q. Company P which is a proprietor of the Patent or Company L which is a licensee of the use of the Patent under the contract manufactures the Product in (11) which is a country other than States having patent right, and a third party X purchases the Product and exports it to (2) which is a State. Can P prohibit importing the Product to (2)?

A. Yes.

(Polydol Ltd. vs. Harlequine case. Provided, the judicial precedent is concerning the copyright. (11) Portuguese, which was not the Contracting State then. (2) England)

Case-5

Q. A third party X manufactures the Product in (10) which is a country other than the Contracting States and does not have patent right, and exports the Product to (2) which is a State. Can P prohibit importing the Product to (2)?

A. Yes.

Case-6

Q. Company Y which is a compulsory licensee manufactures the Product in (11) which is a country other than the Contracting States and has patent right, and a third party X purchases the product and exports it to (2) which is a State. Can P prohibit importing the Product to (2)?

A. Yes.

Figure 4. shows the chart of the types of above each case.

8 Discussion

According to the provision of CPC, if it is implemented in its complete form, applications for the Contracting States shall be made only by CPC application or national patent application. However, under the present condition, the applicant may choose either conventional EPC application or CPC application during the transitional period.

It is considered that possibility of effectuation of CPC is growing by the introduction of such flexible measures. The effective term of the transitional period is said to be 5 - 10 years.

Following investigation is made in the eyes of applicants outside of the Contracting States considering such situation.

Some advantages and disadvantages are pointed out for the applicants outside of the Contracting States on the Community Patent, in comparison with the bundle of two or more of national patent applications. In consideration of these features, strategy of application and tilizing the rights may be given.

(1) Advantages and disadvantages

Following are the advantages:

(i) Various procedures such as priority claim can be done at one time. (Same as EPC application)

(ii) Patent administration procedures such as payment of renewal fee can be taken at one time.

(iii) Formal objection can be treated at one place intensively.

(iv) Litigation against patent infringement claim can be done intensively. Difference of interpretation of patent rights on a State basis diminishes and uniform examination is expected.

(v) Total cost is reduced in case applicants wish to make applications for many States.

(vi) The cases requiring setting up the compulsory right on the grounds of non-excercising is considered to be reduced for the Community Patent in comparison with the conventional national patent.

On the other hand, following disadvantages are considered:

(vii) Considerable cost and labour are needed in translating into the official languages of nine Contracting States.

(viii) Due to invalidity in one State, the Community Patent may become void.

(2) Application strategy

(i) If an applicant wish to obtain the rights in all of CPC Contracting States in respect of one invention, various advantages are expected by obtaining the Community Patent in the aspects of costs incurring in application to granting, maintenance fee, cost and labour administrattion, procedure and cost for infringement litigation.

For applicants who intend to make applications for many States per one invention, such as Pharmaceutical Company, the advantages of CPC application can be made most of.

(ii) In case of invention that applications for a few main States are satisfactory, the advantages are

set off by the cost for translation and there is every possibility that the applicant will suffer disadvantages.

(iii) Within the scope of information given so far, the text of application and claims shall be written in the same manner as in EPC application, even after CPC takes effect.

(iv) In case at least one Contracting State is designated in EPC application during the effective term of transitional period, the application is deemed to require granting of the Community Patent. Provided, however, if the applicant does not wish to obtain the Community Patent but European patent, he shall file a statement indicating that he wish to abandon adaptation of CPC, i.e. he wish to choose EPC application, in advance.

In this case, if three or more Contracting States are designated, the applicant must pay the designation fee for that number of States.

(v) As to EPC application that may become pending at the time of effectuation of CPC, it can be changed to the application requiring the grant of Community Patent in case all States are designated in its application.

Table 2. shows the possible application route on a State basis. Tow colums are provided for Netherland considering the possibility that it may become not to deal with the national patent application after CPC enters into force.

(3) Strategy with respect to the rights

(i) It is the great advantage that litigation against the infringement of the Community Patent right is made at one place intensively.

(ii) The cases which require setting up the compulsory right on the grounds of non-exercising are considered to be reduced for Community Patents in comparison with for the conventional national patent rights.

(iii) Forcasts regarding the Community Patent is blurred because the place in which the CAC which is considered to influence the interpretation of rights of the Community Patent right will be set up is not decided yet. This is based upon the idea that the operation of CAC will be affected by the laws and customary of that place.

(iv) In case applicants wish to obtain the Patent for the purpose of granting the license to use the Patent rather than using the Patent by applicant himself, the Community Patent is convenient. It is because the inclusion licence is required rather than license limiting the territory in the territory of Contracting States.

(4) Request

(i) In order to make CPC application more attractive, reduction of renewal fees and reduction of number of languages to which translations must be made are considered to be the issues to be discussed.

Other systems such as that translations to every official language only by claims enable to obtain the Community Patent and translations of the text of applications into the language of the State concerned shall be submitted when such requirement as infringement incident arises, should be further discussed.

(ii) In transition to the national patent due to the failure to submit the translations after examination of the Community patent, such failure should not be the ground for limiting the rights in excercising the right and litigation thereafter.

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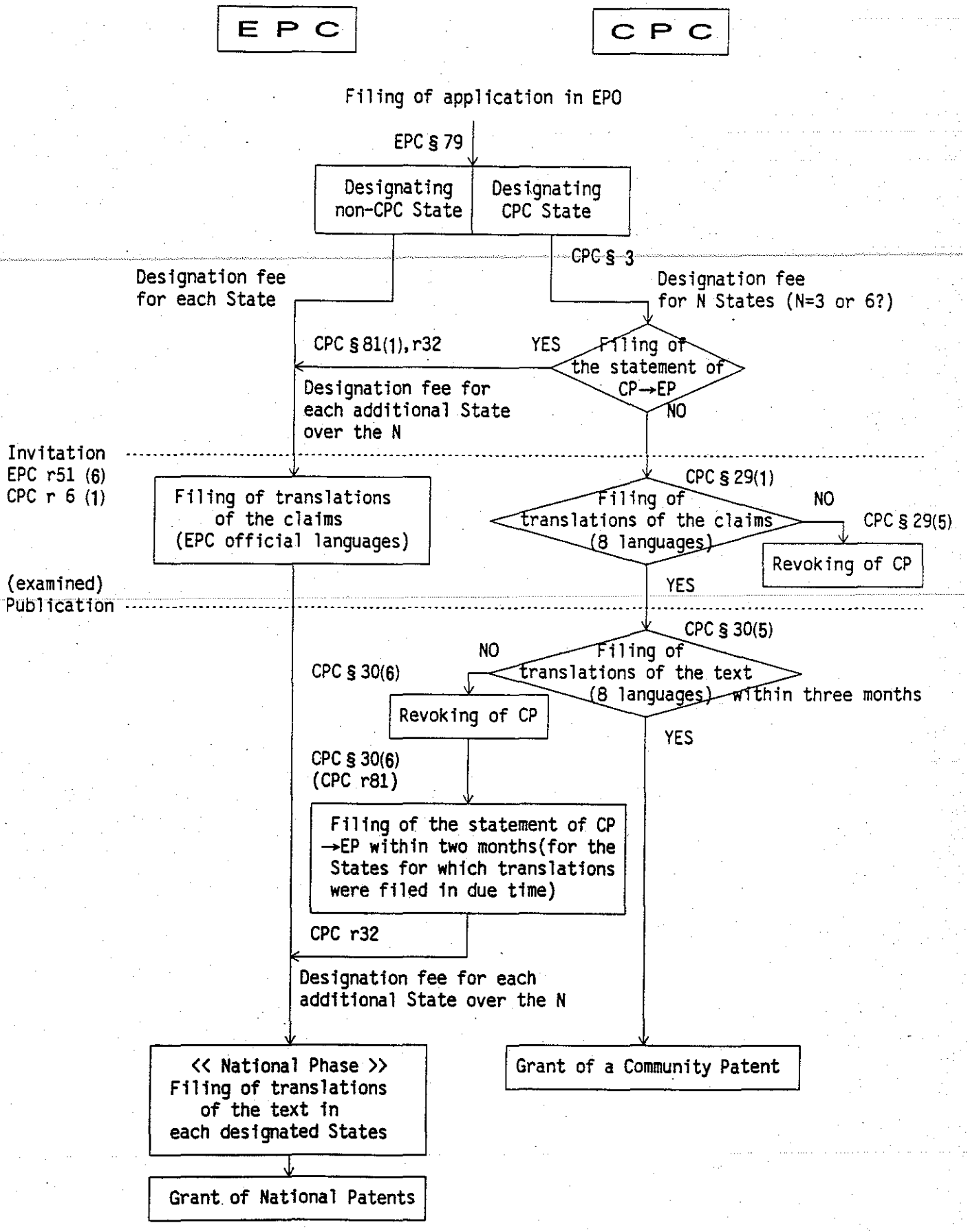


Figure 1: CPC/EPC transition procedure

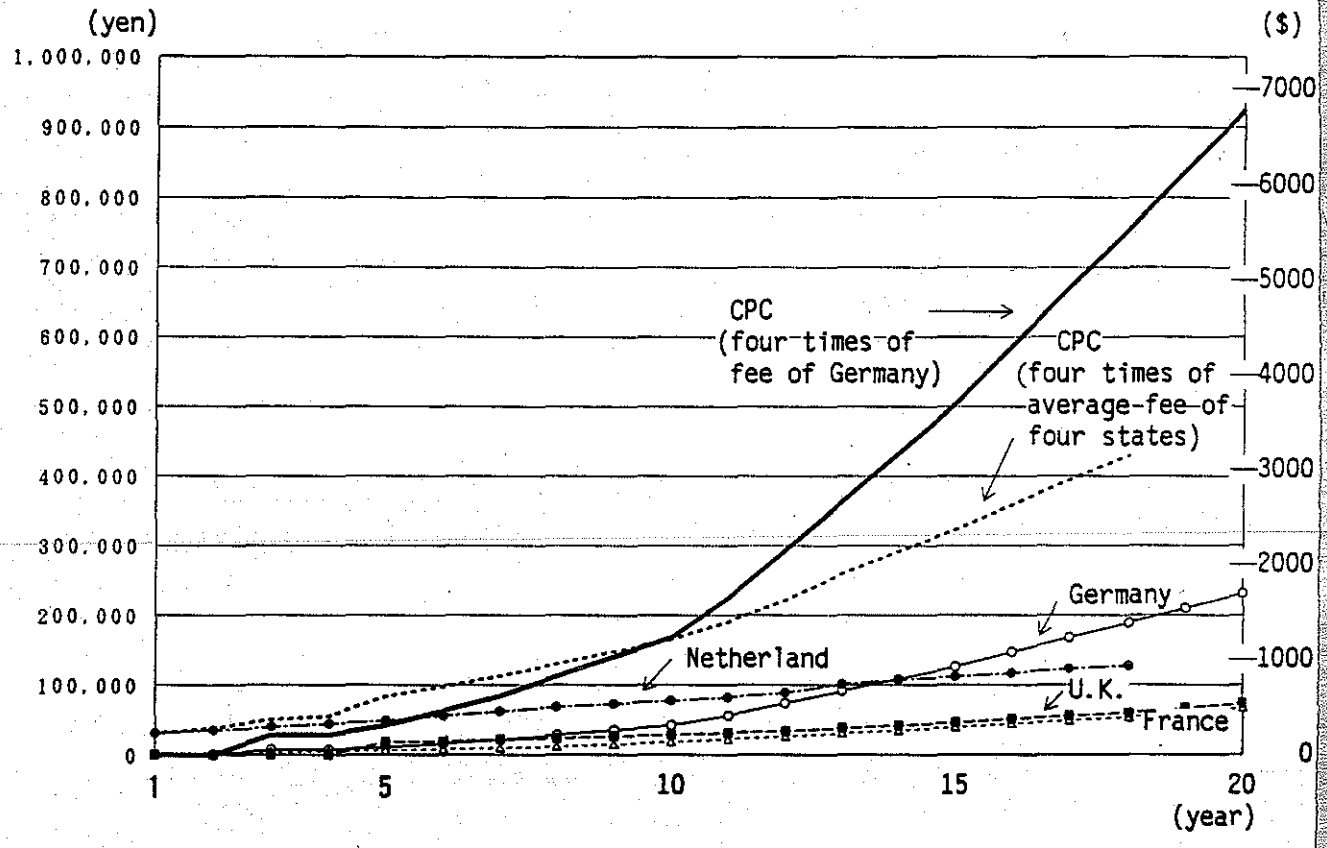


Figure 2: Change of estimated CPC annual fees

ANNEX

Community patent courts

Contracting State	Name of the Court (a) First instance (b) Second instance	Territorial jurisdiction
BELGIQUE	(a) Tribunal de première instance de Bruxelles	Toute la Belgique
	(b) Cour d'Appel de Bruxelles	Toute la Belgique
BELGIË	(a) Rechtbank van eerste aanleg Brussel	Hele Belgische grondgebied
	(b) Hof van Beroep te Brussel	Hele Belgische grondgebied
DANMARK	(a) — Østre landsret	Staden København og øernes amter
	— Vestre landsret	Jyllands amter
	(b) Højesteret	Hele riget
DEUTSCHLAND	(a) — Landgericht Braunschweig	— Land Niedersachsen
	— Landgericht Düsseldorf	— Land Nordrhein-Westfalen
	— Landgericht Frankfurt (Main)	— Länder Hessen und Rheinland-Pfalz
	— Landgericht Hamburg	— Länder Bremen, Hamburg und Schleswig-Holstein
	— Landgericht Mannheim	— Land Baden-Württemberg
	— Landgericht München I	— Oberlandesgerichtsbezirk München
	— Landgericht Nürnberg-Fürth	— Oberlandesgerichtsbezirke Nürnberg und Bamberg
	— Landgericht Berlin	— Land Berlin
	— Landgericht Saarbrücken	— Saarland
	(b) — Oberlandesgericht Braunschweig	— Land Niedersachsen
	— Oberlandesgericht Düsseldorf	— Land Nordrhein-Westfalen
	— Oberlandesgericht Frankfurt (Main)	— Länder Hessen und Rheinland-Pfalz
	— Oberlandesgericht Hamburg	— Länder Bremen, Hamburg und Schleswig-Holstein
	— Oberlandesgericht Karlsruhe	— Land Baden-Württemberg
	— Oberlandesgericht München	— Oberlandesgerichtsbezirk München
	— Oberlandesgericht Nürnberg	— Oberlandesgerichtsbezirke Nürnberg und Bamberg
	— Kammergericht Berlin	— Land Berlin
	— Oberlandesgericht Saarbrücken	— Saarland
ΕΛΛΑΔΑ	(α) — Πρωτοδικείο Αθηνών	— Περιφέρειες των Εφετείων Αθηνών, Πειραιώς, Πατρών, Ναυπλίου, Κρήτης και Δωδεκανήσου
	— Πρωτοδικείο Θεσσαλονίκης	— Περιφέρειες των Εφετείων Θεσσαλονίκης, Θράκης, Αιγαίου, Λαρίσσης, Ιωαννίνων και Κερκύρας
	(β) — Εφετείο Αθηνών	— Περιφέρειες των Εφετείων Αθηνών, Πειραιώς, Πατρών, Ναυπλίου, Κρήτης και Δωδεκανήσου
	— Εφετείο Θεσσαλονίκης	— Περιφέρειες των Εφετείων Θεσσαλονίκης, Θράκης, Αιγαίου, Λαρίσσης, Ιωαννίνων και Κερκύρας

Contracting State	Name of the Court (a) First instance (b) Second instance	Territorial jurisdiction
FRANCE		Les ressorts des cours d'appel de:
	(a) — Tribunal de Marseille	— Aix-en-Provence, Bastia, Nîmes
	— Tribunal de Bordeaux	— Agen, Bordeaux, Poitiers
	— Tribunal de Strasbourg	— Colmar
	— Tribunal de Lille	— Amiens, Douai
	— Tribunal de Limoges	— Bourges, Limoges, Riom
	— Tribunal de Lyon	— Chambéry, Lyon, Grenoble
	— Tribunal de Nancy	— Besançon, Dijon, Nancy
	— Tribunal de Paris	— Orléans, Paris, Versailles, Reims, Rouen, Basse Terre, Fort-de-France, Saint-Denis (Réunion), Nouméa, Papeete
	— Tribunal de Rennes	— Angers, Caen, Rennes
	— Tribunal de Toulouse	— Pau, Montpellier, Toulouse
		Les ressorts des cours d'appel de:
	(b) — Cour d'appel d'Aix	— Aix-en-Provence, Bastia, Nîmes
	— Cour d'appel de Bordeaux	— Agen, Bordeaux, Poitiers
	— Cour d'appel de Colmar	— Colmar
	— Cour d'appel de Douai	— Amiens, Douai
	— Cour d'appel de Limoges	— Bourges, Limoges, Riom
	— Cour d'appel de Lyon	— Chambéry, Lyon, Grenoble
	— Cour d'appel de Nancy	— Besançon, Dijon, Nancy
	— Cour d'appel de Paris	— Orléans, Paris, Versailles, Reims, Rouen, Basse Terre, Fort-de-France, Saint-Denis (Réunion), Nouméa, Papeete
	— Cour d'appel de Rennes	— Angers, Caen, Rennes
	— Cour d'appel de Toulouse	— Pau, Montpellier, Toulouse
EIRE	(a) An Ard-Chúirt	Éire go huile
	(b) An Chúirt Uachtarach	Éire go huile
IRELAND	(a) The High Court	All of Ireland
	(b) The Supreme Court	All of Ireland
ITALIA	(a) — Tribunale di Torino	— Piemonte, Liguria, Val d'Aosta
	— Tribunale di Milano	— Lombardia, Veneto, Trentino-Alto Adige, Friuli-Venezia Giulia
	— Tribunale di Bologna	— Emilia-Romagna, Toscana, Marche
	— Tribunale di Roma	— Lazio, Umbria, Campania, Abruzzi, Molise
	— Tribunale di Bari	— Puglia, Basilicata, Calabria
	— Tribunale di Palermo	— Sicilia
	— Tribunale di Cagliari	— Sardegna
	(b) — Corte d'appello di Torino	— Piemonte, Liguria, Val d'Aosta
	— Corte d'appello di Milano	— Lombardia, Veneto, Trentino-Alto Adige, Friuli-Venezia Giulia
	— Corte d'appello di Bologna	— Emilia-Romagna, Toscana, Marche
	— Corte d'appello di Roma	— Lazio, Umbria, Campania, Abruzzi, Molise
	— Corte d'appello di Bari	— Puglia, Basilicata, Calabria
	— Corte d'appello di Palermo	— Sicilia
	— Corte d'appello di Cagliari	— Sardegna

Table 1: List of community patent court ③

Contracting State	Name of the Court (a) First instance (b) Second instance	Territorial jurisdiction
LUXEMBOURG	(a) Tribunal d'arrondissement de Luxembourg ou de Diekirch	Tout le Luxembourg
	(b) Cour d'appel du Grand-Duché	Tout le Luxembourg
NEDERLAND	(a) Arrondissementsrechtbank te 's-Gravenhage	Hele Nederlandse grondgebied
	(b) Gerechtshof te 's-Gravenhage	Hele Nederlandse grondgebied
UNITED KINGDOM	(a) — The Patent Court	— England and Wales
	— The Outer House to the Court of Session	— Scotland
	— The High Court	— Northern Ireland
	(b) — The Court of Appeal	— England and Wales
	— The Inner House of the Court of Session	— Scotland
	— The Court of Appeal	— Northern Ireland

Table 2: **Application Route to West European Countries**

	France Belgium Italy United Kingdom Germany Greece Spain Luxemburg (Netherland) →	Nertherland	Denmark	Portugal	Ireland	Switzerland Lichtenstein Austria Sweden	Finland Norway
CPC	○	○					
EPC	○		○	○		○	
PCT (Euro-PCT)	○ ○		○			○	○
National	○		○	○	○	○	○

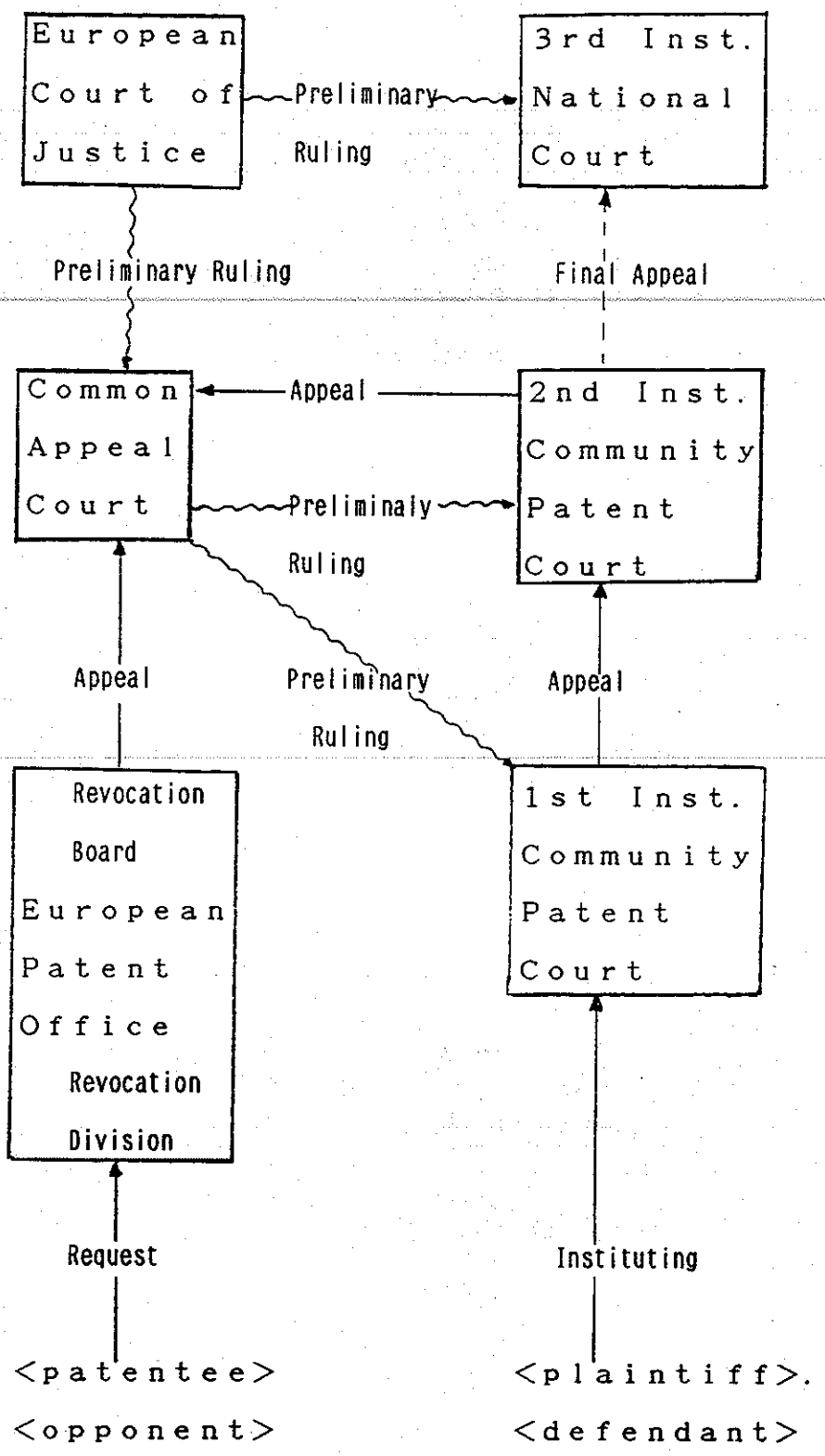
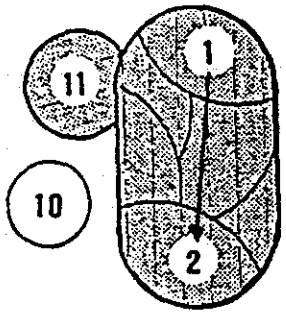
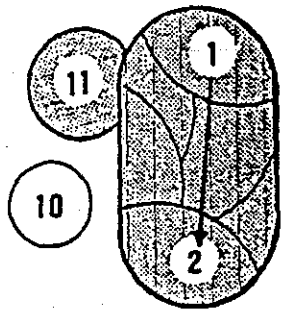


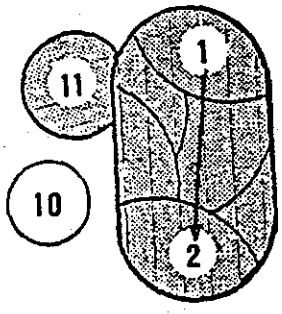
Figure 3: Judical institutions dealing with community patent



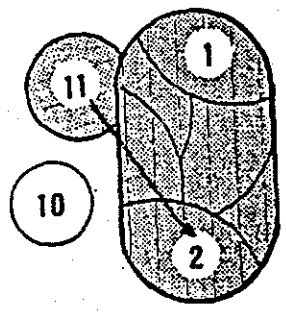
Case-1



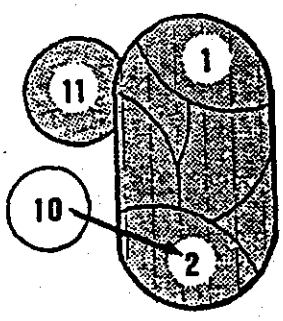
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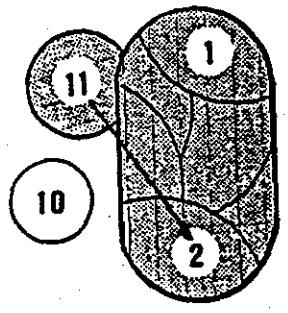
Case-3



Case-4



Case-5



Case-6

Figure 4: Types of parellel import

PIPA Database Coversheet

(1)	Title	:	Use of the Community Patent Convention
(2)	Date	:	September 3, 1991
(3)	Source	:	
	1)		PIPA
	2)		United States
	3)		No. 3
(4)	Author	:	Lawrence T. Welch
(5)	Keywords	:	CPC, European Community Patent Convention; Procedure; Annuities, Translations
(6)	Statutory Provision(s)	:	Article 142, European Patent Convention
(7)	Abstract	:	The CPC will come into force no later than December 31, 1992. Procedures for using the CPC and the advantages and disadvantages of doing so are discussed.

PIPA COMMITTEE 3
ROCHESTER CONGRESS

USE OF THE COMMUNITY PATENT CONVENTION [1]

A means for uniform protection in the EC, or too many eggs in one (market) basket?

BACKGROUND

While it is possible that the Community Patent Convention (CPC) will come into force by 31 December 1992 at the latest (the date on which the domestic market for the European Community will be established), what it not at all clear is how the convention will be used by applicants. It is likely that Denmark and Ireland will not be members of the Community Patent Convention at that time.[2] However, at a convention held in Luxembourg in 1989 it was agreed that the treaty could enter into force even if it is not ratified by all member nations by 31 December 1991. The present paper is thus meant to provide some background regarding the Community Patent Convention and the decisions an applicant will face upon its adoption.

Article 142 of the European Patent Convention provides that a group of contracting states are able to decide in a separate agreement that the European patents granted for those states could

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[1] Lawrence T. Welch, The Upjohn Company. The views expressed herein are those of the author and not necessarily those of The Upjohn Company.

[2] The members of EPC currently are: Austria, Belgium, Denmark, France, Germany, Greece, Italy, Luxembourg, The Netherlands, Spain, Sweden, Switzerland (Liechtenstein), and The United Kingdom.

The members of EC currently are: Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, and The United Kingdom. As noted, all but Ireland and Denmark have joined the CPC.

Thus, Austria, Switzerland (Liechtenstein), and Sweden are EPC members but not EC or CPC members, and Ireland and Portugal are EC members but not EPC members (although Portugal will join the EPC in 1992). EPO President Braendli's message to the 1991 AIPLA mid-winter meeting noted that Cypress and Monaco will soon join EPC, that Yugoslavia is expected to join EPC in 1993, and that Hungary and Poland may also join EPC.

be in the form of a single, uniform patent for all of the states together.[3] The Community Patent Convention is based on this provision, i.e., the members of the European Community have joined together to form a group of member states.

Ordinarily, as you probably are aware, the European procedure is as follows: one application is filed in the European Patent Office in one of the three official languages (English, French, or German), and is prosecuted to grant. Upon completion of the granting procedure, the applicant obtains a "bundle" of patent rights which are applicable to each of the member states. That is, after granting of a European patent, the bundle is broken, and a national patent is obtained for each of the countries of the European Patent Convention. If less than all of the countries are designated, national patents will be obtained only in those states designated. Each of these patents then is subject to the national laws of the member state.

PROPOSED COMMUNITY PATENT PROCEDURE

Upon adoption of the Community Patent Convention, as presently envisioned, an applicant under the EPC designating any one of the countries of the European Community will be deemed to have requested a Community Patent. For a transitional period (the length of which is not defined), the applicant has the right to select between a Community Patent and a

[3] Switzerland and Liechtenstein already use this provision, i.e., one can only get a patent for Switzerland and Liechtenstein together.

normal European Patent grant, at any time during the application procedure up to grant. That is, for example, if an applicant designates the U.K., the applicant will be deemed to have requested a Community Patent. Only if the applicant specifically requests a national patent in the U.K. will such a patent be granted.

Essentially, all other aspects of the application procedure are the same under the European Patent Convention. However, there are several problems occurring post-grant regarding the Community Patent which warrant our attention. First, there are strict time limits regarding the filing of translations of the entire specification and claims of the Community Patent for all of the member states. This must occur with three (3) months of the grant. Initially, the Community Patent Convention provided an inflexible rule that a failure to file a translation in any country would cause the Community Patent to be invalidated for all of the countries. Now, according to a compromise reached in 1989, failure to file all of the translations in due time gives the patent applicant the right to convert the Community Patent into a European Patent for all of those countries for which translations had been timely filed. The applicant has two (2) months to request this. For those countries in which the applicant failed to file the translation in time, the applicant has the possibility to reinstate the patent according to Article 122 of the European Patent Convention or request further processing according to Article 121 of the European Patent Convention. These provisions allow restitution of lost rights upon an appropriate showing that time limits were not observed despite the exercise of "due care".

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USE OF THE CPC

Annuities must be paid directly to the European Patent Office until the Community Patent expires. This differs from the national patents obtained by the EPC, wherein annuities are due separately in each country after the bundle is broken.

A major problem with Community Patents concerns validity challenges. The EC countries were faced with the problem that some countries (e.g., Germany) have a nullity proceeding, wherein the validity is challenged, which is separate from the infringement proceedings. In addition, there are proceedings to challenge validity of European Patents within nine (9) months of grant at the EPO. Other member states handle validity and infringement in the same proceeding. A question arose as to which system to adopt. A compromise was reached, wherein lower courts are established in each member state which handle nullity (validity) and infringement together, and the EPO is still charged with handling nullity proceedings as well. A common court of appeals (COPAC) is further established which will handle appeals from infringement and validity suits in member states, as well as nullity actions from the European Patent Office. It is hoped that this will provide a uniform body of precedent for Community Patents, similar to the U.S. Court of Appeals for the Federal Circuit (CAFC). It has not yet been determined where COPAC will be located. This Court is subject to further review by yet a higher patent court for each country.

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USE OF THE CPC

ADVANTAGES AND DISADVANTAGES

1. Annuities - It is expected that the single annuity for the Community Patent will be lower than the sum of the annuities which would be due for the sum of the individual patent annuities. To this extent, the Community Patent would have an advantage. Of course, if a catastrophe happened and this annuity were not paid, all of your EC rights would be lost. Further, you could not keep some countries and avoid annuities in others.

2. Translations - The translation problem has been discussed above. There may well be a significant problem in getting translations made in a timely fashion in countries such as Greece and Portugal, which have only a limited number of individuals available to do such translations. This was brought up by several people at the mid winter AIPLA meeting.

3. Central Attack - The possibility that a Community Patent, containing the entire patent portfolio for the EC, could be challenged in a court with unfamiliar procedures before judges having little experience with patent matters is a significant risk. While some have suggested that the Common Court of Appeals would alleviate these difficulties, there is a significant advantage to be gained by a victory at the trial court level, and thus the obtainment of a Community Patent, and the attendant risk of central attack

in countries with less patent sophistication, is a very real one.

4. Forum Shopping - There is a possibility for forum shopping for infringement suits. The hierarchy for venue is first, where the defendant is resident, second, where the plaintiff is resident, and third, where the Community Common Court of Appeals is located. Defendants may well reside in several member states, and could thus bring nullity proceedings in courts where the procedure would favor them. Proceedings in one member state, or nullity proceedings in the European Patent Office, will automatically stay later proceedings elsewhere.

5. Less Than Entire EC Adoption - As noted, it is likely that initially, Community Patents will not be effective for Ireland and Denmark, and while one can access Denmark via the EPC, one needs to file a separate Irish national patent application to get coverage there.

6. Availability of other systems- The highly successful EPO procedure allows applicants to obtain many of the same advantages as the CPC for the majority of the EC countries. While uniform protection is thus provided for the EPC countries, each national patent obtaining after the EPO grant is unbundled will stand or fall on its own in each country, avoiding the problems discussed above. Further, it is quite likely that Ireland and Portugal will join the PCT

in the next year. As these two countries are the last EC countries not already members, their adherence will make it possible for applicants to preserve rights for all of the EC countries in one PCT application. This can be filed in, e.g., English or Japanese for applicants filing in the US or JPO, respectively. Thus, many of the advantages of the CPC system can be obtained by other means, with less risk to the entire European portfolio.

CONCLUSION

At the present time, the risks attendant to Community Patents seem to outweigh the advantages and it is certainly not clear that the Community Patent route will provide significant advantage to applicants in most instances. If the option to opt out of the CPC is taken away from applicants, the disadvantages described above should be removed.

(1) Title: Claim of Damages Based on Article 102(1) of Patent Law

(2) Date : 10/91 (22nd, Rochester)

(3) Source:

1) Source : PIPA
2) Group : Japan
3) Committee: 4

(4) Authors:

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(5) Keywords: Claim for damages, presumption of damages, profitability

(6) Statutory Provisions:
Articles 102(1) and 105 of Patent Law,
Articles 316 and 317 of the Code of Civil Procedure

(7) Abstract: The amount of claims for damages in patent infringement cases in the United States appears to be increasing. It will be interesting to learn and compare with the situation in Japan. This paper examines decisions regarding claims for damages under Article 102(1) of the Patent Law in order to investigate the current status of claims for damages, particularly those under Article 102(1), and studies the profitability to calculate profits which is presumed as the damages as well as problems in application of Article 102(1).

I: Introduction

Section 284 of the U.S. Patent Law stipulates that "damages should be adequate to compensate for the infringement but in no event less than a reasonable royalty for the use ... together with interests and cost ...". Damages are thus calculated under this provision. It is our impression that damages show a tendency to increase in recent years in the claim for damages for patent infringement.

This is particularly apparent from the comment made by a CAFC judge in a case concerning claim for damages (Panduit Case: Panduit Corp. v. Stahlin Bros., 197 USPQ 726, 1978) that "if the usual license fees were to be regarded as a reasonable royalty as mentioned in Article 284, then the infringement is deemed to not have existed and the infringer was merely given a most convenient compulsory license". We discuss here the situation in Japan corresponding to this trend in the United States.

2. Claim for Damages in Japan

When a patent or a utility model right is infringed in Japan, a claim for damages may be demanded under Article 709 of the Civil Code. This article provides a general formula regarding the tort and its effects when a person is illegally infringed of his/her right or interest by another and suffers damage, and the infringer is held responsible for compensating the damage.

To claim for damages under Article 709, the right holder should generally prove the willfulness or negligence of the other party and calculate the damage suffered by himself/herself. The burden is thus quite huge for the infringed party. In view of this situation, the current Patent Law has special provisions to reduce the burden and reinforce protection of the patentee.

Special provisions are Articles 102 and 103 of the Patent Law regarding presumption of negligence and of amount of damages. Article 103 provides that "a person who has infringed a patent right or exclusive license of another person shall be presumed to have been negligent as far as the act of infringement is concerned". Unless the infringer chooses to prove otherwise, there is no need to prove the negligence. Article 102(1) stipulates that "where a patentee or exclusive licensee claims from a person who has intentionally or negligently infringed the patent right or exclusive license, compensation for damage caused to him/her by the infringement, the profits gained by the infringer through the infringement shall be presumed to be the amount of damage suffered by the patentee or exclusive licensee." Article 102(2) further stipulates that "a patentee or exclusive

licensee may claim from a person, who has intentionally or negligently infringed the patent right or exclusive license, an amount of money which he would normally be entitled to receive for the working of the patented invention as the amount of damage suffered by him/her". Under these provisions, the profits gained by the demandee by infringement or amount equivalent to the royalty can be proven by the patentee (demander) without directly proving the damage suffered by infringement under Article 709 of the Civil Code.

The patentee claiming damages for infringement of patent, etc. thus faces no problem in proving the negligence, but the problem remains in choosing either of paragraphs 1 or 2 of Article 102 of the Patent Law for calculating the damage to place the priority on the claim for damage.

This paper examines Japanese decisions regarding claims for damages made under Article 102(1) of the Patent Law and attempts to determine if the claim under Article 102(1) is more advantageous for the patentee, and if there are problems in application of Article 102(1) in view of the actual situation that about 1/2 (24 cases) of the cases related to Article 102(2) (49) are computing damages under Article 102(1) according to a case study #1.

3. Claims for Damages under Article 102(1)

We investigated 22 cases claiming damages under Article 102(1) which received decisions between 1972 and 1989 in order to study the actual status and the manner of determining the profitability used to calculate the profits which are presumed as damages (the profitability as used hereinafter is used in this context). The table below shows the result of the investigation.

Actual Status of Claims for Damages
under Article 102(1) of Patent Law

No.	Date of decision	Case No.	Name of case	Profitability mentioned in decision (*1)
1	11/28/62	T.D.C.S37* (wa)731	Hair curler for permanent wave case*	16.9%
2	12/25/63	T.D.C.S37 (wa)638	Calcium silicate heat insulating material cases	12.0%
3	2/15/64	T.D.C.S37 (wa)5964	Clamp for concrete mold case	11.8%
4	6/13/64	T.D.C.S37 (wa)7348	Ironing stand case	10.0%
5	9/29/64	T.D.C.S37 (wa)7770	Odor- & insect-free toilet case*	1.3%
6	9/13/67	T.D.C.S41 (wa)841	Instant hamburg preparation method case	6.0%
7	5/20/68	O.D.C.S38* (wa)188	Concrete mixer case	12.0%
8	7/24/68	T.D.C.S36 (wa)5614	Accelerated mill case	12.1%
9	12/22/69	T.D.C.S41 (wa)11570	Foldable legs for table case	15.4%(*2)
10	3/17/76	Urawa D.C. S47(wa)757	Developing device case*	10.0%
11	3/30/77	T.D.C.S44 (wa)1434	Soldering solvent case*	15.0%
12	2/28/79	O.D.C.S52 (wa)2236 O.D.C.S52 (wa)3461	Artificial hair planter case	30.0%
13	3/24/80	T.D.C.S48 (wa)6704	Packing machine case (High court decision 6/21/74)	15.6%
14	10/31/80	O.D.C.S50 (wa)3925	Tire manufacturing method case	19.4%(*3)
15	3/30/82	T.D.C.S51 (wa)2558	Starch noodle manufacturing method case	20.0%

16	5/29/85	Okayama D.C. S52(wa)652	Punch hunger case*	31.7%
17	11/25/87	O.D.C.S59 (wa)7127	Parquette-pattern material manufacturing method case	5.0%(*4)
18	12/21/87	Kyoto D.C. S60(wa)1403	Fabric color pattern pasting case	33.2%(*5)
19	9/29/89	T.D.C.S60 (wa)11590	Partial wig case	16.0%
20	2/ 9/90	T.D.C.S56 (wa)3939	Lead chrome pigment case	11.5%(*6)
21	4/ 8/80	O.D.C.S54 (wa)6009	Name plate case	Unknown (*7)
22	10/ 9/86	Kyoto D.C. S55(wa)1429	Discharging agent composition case	Unknown (*8)

*T.D.C. = Tokyo District Court

*O.D.C. = Osaka District Court

*Defendant demanded payment for partial damages.

(*1) Numbers below the second decimal place rounded.

(*2) Because of joint ownership, the amount was decreased proportionate to percentage owned, and the actual damage was 7.6% of the gross sale.

(*3) Because of joint ownership, the amount was decreased proportionate to percentage owned, and the actual damage was 2.8% of the gross sale.

(*4) Because of joint ownership, the amount was decreased proportionate to percentage owned, and the actual damage was 2.3% of the gross sale.

(*5) Profitability was obtained from the gross profit and the gross sale. The present case calculated the profitability for four terms. The profitability was 36.4% at maximum and 25.7% at minimum.

(*6) The amount equivalent to the royalty recognized as 5% under Article 102(2) in the decision and the damage under Article 102(1) were compared, and the profitability was presumed to be 11.5%.

(*7) The damage was ¥4,000,000 and the profitability was unknown.
(*8) The damage was ¥78,761,287 and the profitability was unknown.

According to the above, if the demand is made under Article 102(1), there are only three cases where the profitability was determined to be less than 6% of the minimum sale. Quite high profitability was recognized for all others (except the two of which profitability was unknown) at 10% or higher, with the highest being 33.2%. [(Kyoto District Court Sho 60 (wa) 1403, December 21, 1987 (Fabric Color Pattern Pasting Case)]. The average profitability is 15.2%.

According to a case study #2 of decisions, out of 49 decisions that demanded the equivalent of royalties under Article 102(2) as the damages, the profitability was recognized as ranging from 17.7% to 0.5%, average being 3 to 5% for 70% of the cases.

If the demand is made udner Article 102(1), the damage can be expected with a high profitability of about 15%, which is higher than that under Article 102(2). The former is clearly more advantageous for patentees. In the study #1 mentioned above, the demands under Article 102(2) are made at about twice (49 cases) that of those under Article 102(1). This is perhaps attributable in part to various restrictions (requirements) and problems imposed on the demands under Article 102(1).

Requirements for the demand under Article 102(1) and the problems are discussed below.

4. Requirements for Demands

Application of the presumption rule under Article 102(1) of the Patent Law requires generally (1) that plaintiff themselves are working the invention, (2) that the damage occurred as a result of infringement, and (3) the amount of defendant's profits is proven.

(1) That the plaintiff themselves are working the invention

The presumption rule of Article 102(1) is applicable to the claim of damages made by the patentee or exclusive licensee

against a person who infringed their patent or exclusive license. In this case, not only the patentee and exclusive licensee, but also DOKUSENTEKI TSUJO JISHIKENSHA (exclusive licensee with limited exclusivity) is also recognized to have the right to claim for damages. (Osaka District Court Sho 52 (wa) 2236, February 28, 1979 "Artificial hair planter case"). Since DOKUSENTEKI TSUJO JISHIKEN authorizes working of the invention on a limitedly exclusive basis, a third party who works the invention without authority will be deemed to have infringed it, thus leading to recognition of the infringement as a tort.

Application of the presumption rule of Article 102(1) requires the proof by the plaintiff that the invention is being worked by the plaintiff themselves. To hold that infringement caused damages in business, the plaintiff themselves must be working it. A decision held that if the plaintiff was not working the invention and not obtaining profit by working, then any profits gained by the defendant, etc. cannot be presumed to be the damage to the plaintiff. (Tokyo District Court Sho 37 (wa) 1616), September 22, 1962 "Double gun toy case")

(2) That the damage occured as a result of infringement

The presumption rule of Article 102(1) is understood to presume the damage suffered by the plaintiff based on the profit gained by the defendant, but not the precondition of occurrence of damage. Therefore, the plaintiff must prove that they are suffering damage by infringement. For instance, by proving the fact that the defendant's product and the plaintiff's product are competing in the market, the plaintiff can assert the application of the presumptive rule of Article 102(1).

On the other hand, the defendant can overturn the presumption under this rule by asserting that their product is not a competitor with the plaintiff's product in the market or that there are products made by third parties.

(3) Proof of defendant's profit

The presumptive rule of Article 102(1) was established to protect the right holder because proving the profits gained by

the infringer is easier than proving the damage suffered by the infringed.

In order to prove the profits gained by the defendant, Article 105 of the Patent Law may be relied to cause production of documents by the defendant and assess their profits in order to calculate the damage caused by the infringement. Generally, the plaintiff claims as the damage the gross profits which are easier to calculate than the net profits, and the defendant asserts as the damage the amount obtained by subtracting various expenses from the gross profits.

5. Problems

Problems regarding claim for damages under Article 102(1) of the Patent Law are discussed below.

(1) Calculation of "Profits" (Gross profits or net profits?)

Article 102(1) provides that "the profits gained by the infringer through the infringement shall be presumed to be the amount of damage suffered by the patentee ...". In interpreting this rule, one questions what are "the profits gained through the infringement".

There are two ways of interpretation. One is the gross profits [the amount obtained by subtracting from the sales price of the products the manufacturing costs or the purchase costs], and the other is the net profits [the amount obtained by subtracting from the gross profits the sales costs (such as the transportation costs) and the general administration costs]. In academia, the net profit theory is generally regarded as reasonable (*3), and most of the decisions studied by us also appear to hold net profits as the profits. (Tokyo District Court Sho 56 (wa) 3939, February 9, 1990 "Lead chrome pigment case", Tokyo District Court Sho 37 (wa) 7770, September 29, 1964, "Odor- and insect-free toilet case", Kyoto District Court Sho 60 (wa) 1403, December 21, 1987, "Fabric color pattern pasting case"; Tokyo District Court Sho 41 (wa) 841, September 13, 1967 "Instant hamburg case"). Only one decision held the gross profits as the profits (Osaka District Court Sho 50 (wa) 3925, October 31, 1980, "Tire Manufacturing Method Case"). Thus, the theory of net

profits appears to prevail among legal decisions. In view of the intent and development of enactment of this provision, we believe that this theory should be adopted.

As regards proving the profits, a decision (Osaka District Court Sho 58 (wa) 9110, June 28, 1985 "Etiquette brush case") held that the plaintiff needs to prove merely the gross profits, indicating that the plaintiff merely needs to prove the gross profits in claiming the demand under Article 102(1) of the Patent Law.

(2) Production of documents under Article 105 of Patent Law (Application of Articles 316 and 317 of the Code of Civil Procedure)

When claiming for damages under Article 102(1) of the Patent Law, the defendant usually asserts and proves the amount which is less than the profits asserted by the plaintiff. In order to support the plaintiff's assertion, documents in possession of the defendant (such as books of accounting) are sometimes required. The court also occasionally requires the parties to produce documents in order to correctly assess the damages. The Patent Law provides in Article 105 production of documents to address such situation.

Article 105 reads that "in litigation relating to the infringement of a patent right or exclusive license, the court may, upon the request of a party, order the other party to produce documents necessary for the assessment of the damage caused by the infringement. However, this provision shall not apply when the person possessing the documents has a legitimate reason for refusing to produce them". Under Japan's Code of Civil Procedure, the court may accept the other party's assertion regarding the document as true if the party being requested fails to produce the documents (Article 316). If the party destroyed the documents to prevent the use by the other party, the other party's assertion regarding the documents may be accepted as true (Article 317).

We have investigated the cases under Article 102(1) to see to what degree Article 105 was relied in having the documents

produced and if there were any cases to which Articles 316 and 317 of the Code of Civil Procedure were applied.

Of the 22 decisions related to claims for damages under Article 102(1) we studied, only two mentioned Article 105. One applied Article 316 of the Code of Civil Procedure when the defendant failed to comply with the order for producing documents under Article 105 (and the plaintiff's assertion was recognized) (Kyoto District Court, Sho 55 (wa) 1429, October 9, 1986 "Discharging agent composition case"). The other did not apply Article 317 because the documents to be produced were lost by the fire or incineration by a factory worker by holding that the loss was not intentional (Tokyo District Court, Sho 38 (wa) 188, May 20, 1968 "Concrete Mixer case").

Article 316 of the Code was not applied to a case where the defendant failed to comply with the order for producing documents under Article 105 of the Patent Law. (Tokyo District Court, Sho 56 (wa) 3940, February 29, 1990, "Lead chrome pigment case").*4

The above result indicates that the order for producing documents under Article 105 of the Patent Law is not fully utilized in the claims for damages under Article 102(1), and Article 316 of the Code is not always applied.

Article 105 of the Patent Law provides a means to secure production of documents related to the profits by the parties and there are actually decisions that applied the provision of Article 316 if the party failed to comply with the order, we feel that plaintiffs should avail themselves of this rule in a more effective way. At any rate, Article 105 is an important rule for respecting the rights such as patent rights. In order to assure the order for production of documents under Article 105 to function fully, to secure the fairness both to the plaintiff and the defendant, and facilitate claims under Article 102(1), it is desired that these Articles 316 and 317 be operated more rigorously.

(3) Claim for demand by a joint owner

Patent Law does not contain a provision for a joint patent owner to claim damages. According to Article 264 of the Civil

Code, the provisions of the Code are applied mutatis mutandis to other property rights unless provided otherwise by the laws and orders. Since a patent right is a property right, the Civil Code is applied to it unless it contravenes the nature of patent. It then transpires that a joint patentee may claim the damages for infringement of his/her portion of the patent. There is a thinking that the right to claim damages against a third party for infringement is an indivisible right. According to this thinking, a joint owner may claim all the damages suffered in respect of said patent right, thus causing disputes among the joint owners regarding their shares of damages.

Both the legal decisions and academic theories hold that damages corresponding to the shares alone can be claimed. This is because the shares of joint owners have been infringed and only the damages caused to the shared right can be claimed. There were three cases examined which dealt with joint ownership of the right.

As mentioned above, they all held that damages caused to shares of joint owners can be claimed in respect of the damages presumed under Article 102(1) (Tokyo District Court Case Sho 41 (wa) 11570, December 22, 1969 "Foldable legs for table case"; Osaka District Court Case Sho 50 (wa) 392, October 31, 1980 "Tire manufacturing method case"; Osaka District Court Case Sho 84 (wa) 7127, November 25, 1987 "Parquette-pattern material manufacting method case").

As for the problem of determining the damage according to the portions held by joint owners, the amount proportionate to the percentage of the shares is deemed the damage suffered.

The case of "Freely foldable legs of table case" involved joint owners who shared the business according to their roles. The profits gained by the infringer are devided proportionately according to the profits cited by joint owners.

In further detail, one of the joint owners who is the plaintiff sells all the products manufactured by another joint owner, and the defendant manufacturers and sells the products on their own. The damage presumed in respect of a joint owner who is engaged in manufacture equals the profits obtained by the

defendant from manufacture, and the damage presumed in respect of another joint owner who is engaged in the sale equals the profits gained by the infringer from sale.

The decision, however, held it difficult to divide the profits into those from manufacture and those from profits and therefore presumed the profits of the infringer from these two sources proportionate to the profits earned by joint owners respectively.

As discussed above, there are no problems in joint owners independently claiming their damages, and also no problems in their claiming damages according to their share of right.

There are two methods for allotting the profits gained by the infringer; the method of proportionately deviding it according to the shares or to the profits. When claiming the damages, it is reasonable to choose a method which would result in the largest damage presumed.

(4) When the infringer has not gained profits

Article 102(1) provides to presume the profits of an infringer as the damages if the infringer is making profits. Problem arises if the infringer is not making profits. In "Instant hamburger preparing method case", the defendant asserts losses, let alone profits. The decision in this case, however, judged that the defendant gained the profits, and we cannot determine the question from this case.

There are two types of profits gained by the infringer; when the property increases positively and when the property is prevented from decrease as anticipated. Regardless of whether the books are in black or red, if the profits as mentioned in the foregoing are gained, then the profits would be presumed as the damages.

Another problem is when the infringer is gaining no profits at all as mentioned above. In this case, the presumptive rule of Article 102(1) does not operate at all, and the right holder would have to prove their own damage under Article 709 of the Civil Code.

If it is not possible to prove the damages, then the claim for demand can be made only for the amount equivalent to royalties under Article 102(2). There are actually decisions that held the damages to the equivalent of royalties in the event the infringer is making no profits.

6. Conclusion

We have examined several cases where the claim for damages under Article 102(1) is disputed in patent or utility model infringement cases, and found that the damage recognized under this Article was quite different from the amount recognized udner Article 102(2). The profits gained by the defendant which are presumed to be the damage suffered by the plaintiff were more than 10% of the total sales in most cases or as large as 33.2% in a case. That the number of cases to which Article 102(1) is applied is about 1/2 of those to which Article 102(2) is applied encourages the right holders.

To have the presumptive rules of Article 102(1) applied, (1) the plaintiff must be working the subject invention, (2) that there is damage accrued because of infringement, and (3) that the amount of the defendant's profits are proven.

We wonder if resort to Article 102(2) is because of the conditions imposed in order to have the presumptive rules of Article 102(1) applied, and because the condition (3) is particularly difficult to prove. We expect the rule concerning production of documents under Article 105 should be more actively utilized and the "order to produce necessary for the assessment of the damage caused by the infringement ..." should function more fully.

References

*1: Kojou, H.: "Calculation of damages in Patent/Utility Model Infringement Suits "(1). Hatsumei, Jan. 1989 (in Japanese)

*2: Kojou, H.: "Calculation of damages in Patent/Utility Model Infringement Suits" (5). Hatsumei, May, 1989 (in Japanese)

*3: Nakayama, N. ed.: Annotated Patent Law: vol. 1, p. 868 (Seirin Shoin) (in Japanese)

*4: In this case, the plaintiff claimed the damage which is equivalent to the royalties under Article 102(2), and when the claim was dismissed, the plaintiff claimed the damage under Article 102(1).

(1) Title: "Need for Preservation" in Preliminary Disposition for Injuction of Patent Infringement

(2) Date : 10/91 (22nd, Rochester)

(3) Source:

1) Source : PIPA
2) Group : Japan
3) Committee: 4

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(5) Keywords: Preliminary disposition, preservation under the civil procedure, patent right, decision, interpretation

(6) Statutory Provisions: Patent Law Art. 100, Civil Preservation Law Art. 23(2)

(7) Abstract: Regarding the preliminary disposition for injunction of patent infringement, the court decides on the preliminary disposition by considering the presumptive proof of the "interests to be preserved" and the "need for preservation". This paper discusses the "need for preservation" by focusing on and analyzing the three conditions for making it credible as reflected in the past decisions; "obligee's working and damage", "obligor's act of working" and "bankruptcy of obligor".

1. Introduction

In instituting a proceeding for injunction of patent infringement, an application for a preservation order is occasionally filed for preliminary disposition for injunction. Under the procedure for preservation order in a preliminary disposition proceeding, oral proceedings and examination of exhibits are performed simply and an order for injunction is

issued quickly as a preliminary judgement. This procedure is taken when damage suffered by the patentee is likely to multiply if waiting for the conclusion in a patent infringement suit as the decision for injunction rendered later may not make up the actual losses.

In applying for a preservation order in a preliminary disposition case, the "need for preservation" must be made credible in addition to "interests to be preserved" simply because of its simplified procedure. This is different from the claim for injunction in a patent infringement suit.

As will be discussed below, the statutory law does not clearly define the "need for preservation". We have studied past decisions in the light of the court's fact findings regarding the presumptive proof of the "need for preservation" and interpretation, and discussed them to arrive at several practical interpretations and find requirements.

2. "Need for Preservation" under the Statutory Law

Article 13 of the Civil Preservation Law provides that "application for a preservation order shall be made by clarifying its intent, the right or interests to be preserved and the need for preservation", and further that "the right or interests to be preserved and the need for preservation should be proven by presumptive proofs".

Article 13 of the Rules of Civil Preservation defines that an application for a preservation order "should concretely describe the right and interests to be preserved and the need for preservation, and also describe evidences for each fact that need to be proven".

Thus, the application for a preservation order must offer presumptive proofs for "the right or interests to be preserved and the need for preservation". In absence of such proofs, the application is dismissed.

Article 23-2 of the Civil Preservation Law further provides that "an order for preliminary disposition to determine a provisional status can be issued when this is needed to avoid an excessive damage or urgent risk that may occur to the obligee in

respect of the interests disputed". Therefore, the "need for preservation" in the application for a preservation order by exercising the right to injunct patent infringement means that there is "an excessive damage or urgent risk to the obligee". This excessive damage or urgent risk is not defined by law, etc.

3. Analysis of Decisions

3-1 Decisions examined

An attempt was made to peruse all the available decisions during the past 20 years regarding preliminary disposition under the Patent and the Utility Model Laws related to applications, appeals, oppositions, cancellations and suspensions of execution; a total of 71 cases (see the attachment) of 1961 and between 1968 and 1990 were studied and classified. The principal sources are "Hanketsu Sokuhou" published by Hatsumei Kyokai and "Tokkyo Kanri: Special Issue of Collection of Decisions" published by Japan Patent Association.

We examined the 71 cases where preliminary disposition was granted once in the application case and the appeal case stage, and found that 23 applications (37%) out of 63 applications were granted preliminary disposition. The cases were divided by the year 1980. Among those before 1980, 10 (37%) out of 27 applications were granted preliminary disposition. Since 1980, 13 (36%) out of 36 applications were granted preliminary disposition. Roughly speaking, there were no changes in the tendency to grant preliminary dispositions before and after 1980.

The duration of examination in these cases was studied; 12 (32%) out of 37 cases received the decision within the same year, 17 (46%) received the decision in the following year, 5 (14%) in the third year, and 3 (8%) in the fourth year. Although the published decisions describe the year when the application was filed, they do not give the date, making it difficult to accurately determine the time spent for examination of the case. Although it is difficult to evaluate the duration, to put it in simple terms, 78% of the total cases received the decision in the year following the year in which the application was filed. We

would therefore like to evaluate it fair and think that the duration is short considering the general situation prevailing in Japan.

Fourteen cases discussing the "need for preservation" as the ground for judgement was studied in further details.

In the table below, the column entitled preliminary disposition (pd) indicated whether the disposition was recognized or not (yes or no), the column entitled interests" indicates whether "interests to be preserved" were made credible or not and whether the judgement was made or not (NJ), and the column entitled "need" indicates whether "the needs to be preserved" were made credible or not, and whether the judgement was made or not.

	Decision/ date	Type	/Name	pd/interest/need	court	case No.
(1)	7/21/72	Oppo.	Tetracycline case	Y/Y/Y	Tokyo DC	S46(mo)20184
(2)	1/10/79	Appln.	Dipyridamole case	Y/Y/Y	Osaka DC	S53(yo)4586
(3)	5/20/80	Appln.	Seagle tablet (Surpiroid) case	Y/Y/Y	Osaka DC	S54(yo)202
(4)	4/21/84	Appln.	Kuroshio Expo Jetcoaster case	N/NJ/N	Kouchi DC	S59(yo)43
(5)	7/02/84	Appln.	Cover for truck case	Y/Y/Y	Nagoya DC	S58(yo)1755
(6)	8/30/84	Cancel	Lever Hoist case	Y/NJ/Y	Osaka DC	S59(mo)2907
(7)	9/20/84	Cancel	Automatic cargo loader case	N/NJ/N	Osaka DC	S59(mo)2097
(8)	10/24/84	Appln.	Fine sand collecting device	Y/Y/Y	Nagoya DC	S59(yo)1312
(9)	12/21/84	Appln.	Automobile muffler case	N/NJ/N	Nagoya DC	S59(yo)1473
(10)	12/22/86	Appeal	Enceron tablet case	Y/Y/Y	Nagoya HC	S60(ra)41
(11)	7/19/87	Oppos.	Herbicide case	Y/Y/Y	Tokyo DC	S61(mo)6070

(12)	9/20/89	Oppos.	Separator for concrete mold case	Y/Y/Y	Osaka DC	S63(mo)54761
(13)	10/16/89	Appln.	Dies mounting/ removing device case	Y/Y/Y	Osaka DC	S63(yo)4063
(14)	2/16/90	Cancel	Precast concrete gutter case	Y/NJ/Y	Tokyo DC	HOI(mo)7011

As is clear from the table, out of 14 cases;

(a) Nine recognized that "the interests to be preserved" and "the need for preservation" were credible (1, 2, 3, 5, 8, 10, 11, 12, 13);

(b) Two recognized "need for preservation" was credible without judging the presumptive proofs for interests to be preserved" (6, 14); and

(c) Three denied presumptive proofs for "need for preservation" without judging those for "interests to be preserved" (4, 7, 9).

The cases under (b) are for cancellation on the premises that "interests to be preserved" exist. Therefore, they did not judge the presumptive proofs for "interests to be preserved".

Of the cases under (c), as one is for cancellation and two are for application to deny the preliminary disposition, no judgement is made regarding "interests to be preserved".

3-2 Requirements to recognize presumptive proofs for "need for preservation" as observed in 14 decisions.

3-2-1 Three requirements

Having studied 14 decisions, we concluded that the requirements for making "need for preservation" credible were (A) "obligee's (right holder) working and damage",
(B) "obligor's working", and (C) "obligor's bankruptcy".

(A) "Obligee's working and damage"

The patented invention is being worked by the obligee (right holder) or licensee, and damage to the obligee has accrued or is expected to accrue due to the working by the obligor in relation to the working by the obligee or licensee in a situation where

the order for preliminary disposition is not issued.

(B) "Obligor's working"

Working by the current obligor exists or working by the future obligor is anticipated.

(C) "Bankruptcy of the obligor"

There is no possibility of the obligor going bankrupt even when the preliminary disposition is recognized.

When the above three requirements are recognized or judged to be self-explanatory by the court, then "need for preservation" is recognized credible, or "excessive damage or urgent risk accruing to the obligee" is recognized credible. However, if any one of the three requirements is denied, "need for preservation" is judged not credible.

In interpreting "excessive damage or urgent risk to the obligee", the decisions do not distinguish between "excessive damage" and "urgent risk". We believe that these are understood as a whole by considering three requirements. And yet it is our understanding of the language of the provision that the difference of the two is as follows. "Excessive damage" means damages as explained in the selection of "obligee's working and damage" exist, while "urgent risk" means damages explained in the said section are anticipated.

In the three cases for cancellation (6, 7 and 14) and one for opposition (1), the obligor asserts "a special circumstance". "A special circumstance" is a concept defined in Article 39 of the Civil Preservation Law: "When there is a special circumstance such as that a damage irreparable by the order for preliminary disposition is likely to occur, the court which issued the order for preliminary disposition or the present court may cancel the order for preliminary disposition upon application by the obligor with a condition that a security is deposited". Throughout these four cases, "a special circumstance" is understood to mean that the damage to the obligor under the preliminary disposition order is an abnormal one or the damage to the obligee induced by failure to perform said order is compensable with money. Abnormal damage as recognized by the

court means that "bankruptcy of the obligor" as mentioned in this paper is denied; i.e. that the obligor may possibly become bankrupt, and the damage compensable with money means that "obligee's working and damage" as mentioned in this paper are denied.

From the intent of the provision in question, there arises an argument that making "need for preservation" and "special circumstance" credible are two different requirements. The decisions studied by us appear to call them by different names depending only on the timing when the obligor makes assertion and the requirement for making "special circumstance" credible appears to be contained in the requirement for making "need for preservation" credible. We wish to further study this point at a later date.

These three requirements are perused in further detail in respect of the decisions in the following section.

3-2-2 "Obligee's working and damage"

In absence of working by the obligee or licensee and if the damage to the obligee is only the money equivalent to the license fee expected from the obligor, "obligee's working and damage" are denied. As will be discussed later, the decisions see no need for preliminary disposition because such damages are fully compensated if the monetary damage is paid at a later date.

Out of 14 decisions, the following two cases (9, 4) denied "obligee's working and damage" and did not recognize the preliminary disposition.

In the Automobile Muffler Case (9), the court judged that there was no "need for preservation" because the obligee neither worked the invention nor licensed the others, and the damage to the obligee were limited to the money equivalent to the license fee due from the obligor.

In this case (9), the obligee asserted that "they filed the application because the obligor has sold a large quantity of the obligor's products claiming that the products do not infringe the present patent, ... as extensive damages by the obligor are anticipated by the products produced by working the present

patent, and calculation/computation of the damages suffered by the obligee is expected to become very difficult". The obligor responded that "the obligee does not work the present invention... the obligee does not work the present invention as a business nor licenses the same to others... The only reason for needing preliminary disposition given by the obligee is that damages to them would accumulate and make it difficult to compute if they were to wait for the decision to be rendered in the present proceeding... It is not as if the obligor was a petty business concern for whom there was no definite prospect... the obligee is a full-fledged enterprise with solid foundation, and the obligee's concern is a mere groundless apprehension". The court determined that "... damages suffered by the obligee is considered to be limited, for the present, to those for which payment of money equivalent to the license fee under the present patent is not possible. Disadvantages suffered by the obligor by the present order for preliminary disposition,... the obligor's business activities (mass production and sale of vehicles) are expected to be seriously hindered and to suffer irreparable damages. As for the obligor's ability to pay compensation, there is no fear in view of its scope of business. Having comprehensively considered and compared the situation of the parties, the present application is held to lack the need for preservation."

In Kuroshio Expo' Jetcoaster Application Case (4), the obligee asserted that "with the present application, the Expo' would end on May 13 of the same year, making it impossible to exercise the right of injunction and rendering the right of preliminary protection inoperable, and the applicant would suffer irreparable damages". The obligor, on the other hand, counterargued that "the damages which may be suffered by the applicant in the event the application for preliminary disposition is rejected are very small as they are limited to the period when the Expo' is held (55 days) and can be easily recovered by the monetary compensation based on the judgement in the case to be rendered later. There is no fear concerning the capacity of the other party to pay the compensation". The court

judged that "... the damage suffered by the applicant... is considered to fall within the scope of profits that would have been earned by the applicant if they received the order at the jetcoaster at the Expo' or the amount equivalent to the licensee fee for the use of jetcoaster during the Expo'. The other party in this case includes municipal bodies with no apparent funding difficulties and it is hardly conceivable that they would face difficulties or find it impossible to make payments in the future", thus denying the "need for preservation". The obligee is an engineering firm for jetcoasters. The damage to the obligee which might accrue in absense of the order for preliminary disposition would therefore be limited to the amount equivalent to the license fee for use from the obligor. In other words, there were no "obligee's working and damage". If the obligee had been engaged in the commercial operation of jetcoasters, then the "obligee's working and damage" might have been recognized.

Among six applications and Koukoku-appeals which recognized "need for preservation" (2, 3, 5, 8, 10, 13), there are decisions which did not refer to "obligee's working and damage" in the "Reasons". They are the Cover for Truck Application Case (5), the Enceron Tablet Application & Koukoku-appeal Case (10) and the Dies Mounting/Removing Device Application Case (13). "Reasons" in these cases mention only the interests and working by the obligor. We therefore understood that "obligee's working and damage" does not obstruct "need for preservation" unless denied by the court.

Following cases which recognized "need for preservation" mentioned "obligee's working and damage" in "Reasons". In the Tetracycline Opposition Case (1), the obligee which is a foreign corporation established a joint venture with a Japanese company and licensed a plural number of Japanese companies. In the Dipyridamole Application Case (2), the obligee imports the Exhibit A to Japan for sale by a Japanese company. In the Siegle Tablet Application Case (3), the obligee grants a license to a Japanese company. In the Lever Hoist Cancellation Case (6), the Automatic Cargo Loader Cancellation Case (7), the Fine Sand

Collecting Device Application Case (8), the Herbicide Opposition Case (11), the Separator for Concrete Mold Opposition Case (12) and the Precast Concrete Cancellation Case (14), the obligees are working the inventions. Among these decisions, following three (1, 6, 11) mentioned the effect on the obligees' market in a clear manner.

In the Tetracycline Opposition Case (1), the court stated that "a party not licensed under a patent should begin the manufacture and sale of the product in question only after the patent has expired and start only then to go into the market and build the basis for their market activities. If the party infringed the patent before its expiration by their manufacture/sale of the product and built its position in the market, then such party would possess the considerable market share by the time the patent expires. For the patentee placed in such a circumstance, it would be considerably difficult to demand compensation for the damages and almost impossible to prove the actual amount of damage, thus disabling the patentee to claim for damages, and shortening in fact the life of the patent".

In the Lever Hoist Cancellation Case (6), the court taught that "examining the possibility for paying compensation for monetary damages reveals that the applicant and the opposite party may occasionally be placed in competitive positions in and out of the country... when the present preliminary disposition is cancelled, the opposite party presumably suffers damages in the sales competition with the applicant including difficulty in marketing, decrease in sales volume, lowered prices or loss of marketing channels, particularly in overseas countries; the damages accompanying the present infringement are expected to occur in a diversified and extensive manner on a continued basis, and the amount of damages is very difficult to determine and prove. It cannot be recognized that the defendant's rights to be preserved can be satisfied by monetary compensation, and there are no presumptive proofs to support the above fact".

In the Herbicide Opposition Case (11), the court teaches that "if the obligor et al. were to start manufacture, import, use and assignment of the present herbicide, the obligee's market

and sales channels are most likely to be eroded by the obligor and others; it is also clear from the experience that a late starter trying to sell a competitive product in the market would have to use lower prices to induce customers to buy their products, thereby disturbing the existing price system. Thus, it is recognized for the time being that the obligee would have their price system disturbed and suffer irreparable damages".

From the above mentioned decisions, the courts appear to think that calculation of the obligee's damages will become difficult if the obligee was working the invention because the effect suffered by the obligee in the market will be added to the amount equivalent to the license fee, thus making full compensation impossible.

In the case where the obligee did not work the invention but merely granted the license thereunder, so long as the licensee would be affected by the infringement in the market, working by the licensee may therefore be regarded as working by the obligee. In the Tetracycline Opposition Case (1), the Dipyridamole Application Case (2) and the Siegle Tablet Application Case (3) where only the licensees are working the inventions, the courts did not address the cases differently just because the obligees are the parties working the invention. In the Tetracycline Case (1), in particular, the court mentioned the effect on the market by deeming that the obligee is working the invention.

3-2-3 "Obligee's working"

None of the 14 decisions denied "working by the obligor". However, the obligor disputed the "working by the obligor" in the Cover for Truck Case (5) and the Fine Sand Collecting Device Case (8).

In the Cover for Truck Case (5), the court taught that "although the defendant alleges that they have not manufactured or sold the Exhibit A after August 10, 1983 when they received a warning from Nippon Fulhalf Kabushiki Kaisha, not a party to the case, there are no presumptive proofs to recognize this assertion".

In the Fine Sand Collecting Device Case (8), the court stated that "although the defendant alleges that they have not manufactured or sold the Exhibit A after filing of the present application for the preliminary disposition, there are no presumptive proofs to recognize this assertion".

These decisions indicate that assertion of absence of "working by the obligor" with presumptive proofs will lead the court to deny the "need for preservation" and not to recognize the preliminary disposition.

3-2-4 "Obligor's bankruptcy"

There are decisions on applications where the obligor asserts occurrence of abnormal damages and argues the "need for preservation". In many cases of oppositions and cancellations, abnormal damages are also asserted. The decisions teach that the abnormal damages that would lead to denial of the "need for preservation" are recognized to exist only when there is a possibility of the obligor's bankruptcy. To be recognized of such possibility means that "the obligor's bankruptcy" is denied.

The decision that recognized "obligor's bankruptcy" is the Automatic Cargo Loader Cancellation Case (7), which held that there was "a special circumstance". In this case, the obligor asserted that "the applicant employs five people and is engaged in the manufacture and sale of the Exhibit A... the applicant is engaged in the manufacture and sale of only the Exhibit A, and the decision for preliminary disposition in this case would cause the employees of the applicant unable to work... although the applicant intends to tide over the situation by emergency loans, the applicant would become unable to pay the wages in less than 10 days, and their bankruptcy is unavoidable". The court held that "it is not reasonable to force the applicant to suffer excessive damages accompanying the above mentioned possible bankruptcy, and cause abnormal damages to the applicant in the long run", and determined that there was a "special circumstance" that should cancel the preliminary disposition by concurrently considering the possible invalidation of the utility model in the co-pending invalidation trial.

In the Tetracycline Opposition Case (1), the obligor asserted that "not only all the searches conducted so far and the resulting plans would be reduced to nil, but also the future prospects would be lost, the reputation would suffer, the morale would become degraded, and the damages would amount to such an extent that money cannot replace, and further asserted that there was a "special circumstance" which consisted of "(I) the obligor... is a fully owned subsidy and not a party to the proceedings... would almost be unable to recover the total expenses of approximately ¥150 million. (II) Since most of the current profits earned by the above mentioned company which is not a party to the proceedings come from the sale of Tetracycline, suspension of its sale is likely to give near fatal damage to said company. (III)...". To this assertion of "the special circumstance", the obligee answered that "of the facts asserted by the obligor, we admit the fact that the obligor went into the area of pharmaceuticals, but deny the rest". The court taught that "if there was clearly the likelihood of damages that would not allow demand for damages, and the obligor had clearly invested a great deal of money to overwhelm the market during the life of patent, then the need for injunction of such damages should be regarded as large". Regarding the "special circumstance", the court did not recognize it by stating that "it is more reasonable to see that the situation asserted arose not from the present preliminary disposition but from the marketing policy taken so far by the obligor and from the economic environment created by them".

In the Siegle Table Application Case (3), the court denied the possibility of bankruptcy by stating that "the sales of the Exhibit A drug is not even on the list of top 15 drugs sold by the company, and even if the company ceased the manufacture and sale of the Exhibit A drug, a situation that would endanger the existence of the company is inconceivable. These facts are recognized by presumptive proofs and the entire intents of the assertions of both parties".

In the Lever Hoist Case (6), the obligor asserted abnormal

damages because "the applicant is a small company with only ¥100 million capital and 160 employees,... the sale of the present products... accounts as much as 10.7% of the total sale...", but the court did not recognize the cancellation by stating that "it is difficult to recognize occurrence of abnormal damages such as the applicant's bankruptcy, and there are no other reasons to deem the damage as abnormal".

As mentioned above, the decisions that cited abnormal damages suffered by the obligor for denying the "need for preservation" did not question the magnitude of damages; they regarded the possibility of the obligors' bankruptcy as the abnormal damages as illustrated by such phrases as "fear of bankruptcy", "situation that may endanger the presence per se of the company", and "abnormal situation that may lead to bankruptcy".

In the Kuroshio Expo' Jetcoaster Application Case (4), the obligor asserted that "the present coaster performs a symbolic function to attract the visitors to Kuroshio Expo', and the defendant has successfully positioned the coaster at a place most likely to attract the crowd in the site by investing tens of million yen at the cost of profitability; if its use was banned, it may give the impression that the Kuroshio Expo' with its most public character, the total investment of more than ¥4 billion, the entrants including four countries, four prefectures, 53 municipalities in Kouchi prefecture, and more than 200 business concerns have closed down, and its success would be affected, causing grave and irrevocable damages". The court taught that "... it is easily imaginable that the grave damage will be caused to making successful the Kuroshio Expo' with its strong public character, and the damages would be of a great magnitude and difficult to recover". In this case, the court judged that there was no need for preservation by having compared the interest of the obligee and the damage of the obligor, having determined in substance that there was no "need for preservation" by denying the above mentioned "obligee's working and damage". Our view, however, is that it is possible for the court to recognize large scope of damages suffered by a business with a

strong public character as being equivalent to possibility of bankruptcy as discussed in the "obligor's bankruptcy" and to deny "need for preservation".

3-2-5 Comparative study of damages to the obligee and the obligor

Many decisions compare and study in the "Reasons" the damages suffered by the obligee without the preliminary disposition and those suffered by the obligor when the preliminary disposition is ordered, and determine whether the "need for preservation" is made credible or not. Of the 14 cases, nine (1, 2, 3, 4, 6, 7, 9, 11 and 14) specifically compare and weigh the damages of both parties. In the eight applications and appeals, four (2, 3, 4, 9) compare and weigh damages of both parties concretely.

In five cases (5, 8, 10, 12, 13) which did not compare or weigh damages of both the obligee and the obligor, the obligor positively disputed the credibility of "interests to be preserved", but there is no dispute of concrete damages as presented regarding "need for preservation". Thus, the court recognizes "need for preservation" in its "Judgement of the Court" without comparing or weighing the damages of both parties. These five cases where the courts recognized the preliminary disposition for all are discussed below.

In the Cover for Truck Application Case (5), the obligee asserted that "8:... the quantities of sale of the above mentioned goods by the defendant are huge, and we are likely to suffer irreparable damages if we were to wait for the established decision of the present case. Therefore we are filing this application". The obligor responded by saying that they "dispute the reason 8 of the application". The court held that "the reason 8 of the application "need for preservation" is recognized for the article identified as Exhibit A according to the presumptive proof for this case".

In the Fine Sand Collecting Device Application Case (8), the obligee asserted that "7:... the quantities of sale of the above mentioned article by the defendant are huge, and the applicant

who is the competitor would suffer irreparable damages if they were to wait for the established decision of the case. Therefore they are filing this application". The obligor responded by indicating that "the reason 7 is disputed", and the court taught that "the reason 7 of the application (need for preservation) is recognized according to the presumptive evidences of this case".

In the Separator for Concrete Mold Opposition Case (12), the obligee asserted that "8:... the obligors have infringed the utility model and design registrations of the obligee and caused huge damages to the obligee. The obligor and others are bound to continue infringement and cause irreparable damages to the obligee if we were to await for the settlement of the present litigation", and the obligor responded that they would "dispute the reasons 7 to 9". The court stated that "the court is keenly aware of the cases pending in the present court regarding preliminary disposition citing utility model infringement, etc. between the obligee and the obligor, and according to the facts and intents of the arguments for the above cases, the reason 8 of the application "need for the present preliminary disposition" is recognized for the present".

In the other two cases, the assertions of the obligee or the obligor do not even appear in the decisions. In the Enceron Tablet Application and Koukoku-appeal Case (110) the court held "the need for preservation is presumed from the reference materials of the case", and in the Dies Mounting/Removing Device Application Case (13), the court taught that "it is reasonable to affirm the need for preservation, for the time being, according to the above".

When the obligor does not dispute the case by submitting concrete evidences as in the above, "the obligee's working and damage", "the obligor's working" and "the obligee's bankruptcy" are held as obvious and the court appears to consider as a matter-of-factly that there are "needs for preservation". As mentioned in 3-2-3 above, obligors in the Cover for Truck Case (5) and the Fine Sand Collecting Device Case (8) dispute "working by the obligor".

3-3 Where probabilities for invalidation in patent invalidation trial are high

According to the decisions, when the court judges that there are high probabilities for established invalidation in the patent invalidation trial and foresees extinction of the patent right, the court does not recognize the preliminary disposition. Lack of the "need for preservation" appears to be the accepted theory in these instances since the Prescribed Quantity Jet Device Application & Kouso-appeal Case (04/27/1961). This is because of a judgement that a patent should be treated valid unless the decision to invalidate is established in a patent infringement suit. Examples of decisions that followed the accepted theory are the Stepping Motor Application Case (10/16/1968), the Work Shoes for Watery Environment Application Case (04/09/1981) and the appeal for the Work Shoes for Watery Environment Application Case (09/02/1981).

An example of the decision that did not follow the accepted theory is the Clamp Application Case (12/23/1970) which "recognized that the interests to be preserved are not sufficiently credible". In other words, it taught that there were no "interests to be preserved" simply because the patent right was invalid.

In this paper, we believe that anticipating extinction of the patent right by the decision of invalidation in a patent trial means denying the presumptive proof for the "interests to be preserved", and have not included this in the conditions to recognize the "need for preservation" credible.

4. New and Old Laws

The Civil Preservation Law which forms the basis for provisional attachments and dispositions was promulgated as the Law No. 91 on December 22, 1989 and enforced as of January 1, 1991.

The Civil Preservation Law was newly enacted to incorporate the Book 6 of the Code of Civil Procedures and Chapter 3 of the Civil Enforcement Law and to accelerate deliberations at the court.

Civil preservation is a general term describing provisional attachments for preservation against compulsory execution and preliminary dispositions of the disputed article, and preliminary disposition to fix the provisional status to remove risks and apprehension of the present and future.

Major revisions are listed below.

(1) Matters that have so far been handled by the decision as a rule and by the determination as an exception are to be handled by the determination to accelerate deliberation.

(2) Matters that have been performed by the operation or interpretation of the provisions are now performed by the provisions as much as possible. This clarified the effects of the conditions.

(3) Appeals that have been allowed up to the court of third instance are now allowed only up to the court of second instance.

Effects on the preliminary disposition cases for injunction of patent infringements which is a type of the preliminary disposition to determine a provisional status are discussed below.

(1) The order for preliminary disposition can be issued only in the presence of the obligor (Article 23-4). This eliminates the need for submitting an appeal to the court to prevent a unilateral order for disposition.

(2) An opportunity is given, for instance, to a corporate engineer to make statement regarding a technically difficult problem (Article 9). Under the old Law, there were arguments whether or not the person other than the party to the case (a legal person such as a corporation) who is, for instance, a company employee and an engineer as above mentioned can make statements. This was enabled by the operation of the law.

Decisions that we have discussed all are those judged by the old Law. However, we based our discussion on the Civil Preservation Law which is the new Law for practical purposes. As

can be seen from the immediately preceding discussion, requirements for issuing a preservation order are practically the same under the two laws. Rules regarding "interests to be preserved" and "need for preservation" are also the same.

When presumptive proofs for "need for preservation" for preliminary disposition are examined, for instance, Articles 740 is applied mutatis mutandis under Article 756 of the Code of Civil Procedures, which provides that "demands and preliminary dispositions must be made credible". Article 760 providing that "... limited to the instances to avoid excessive damages in respect of interests, to prevent urgent violence, or other circumstances that require them..." is applied. Their meanings are the same as those of Article 13 of the new Civil Preservation Law.

Article 759 of the old Code of Civil Procedures providing "special circumstances" related to cancellation of the preliminary disposition defines that "it is possible to allow cancellation of preliminary disposition with deposit of a guarantee limited to special circumstances". The meaning of this provision is substantially the same as that of Article 39 of the new Civil Preservation Law.

We believe, therefore, our discussion of "need for preservation" based on the decisions under the old Law is sufficiently valid for practice under the new Law.

5. Conclusion

We have perused the decisions related to preliminary dispositions, particularly those discussing "need for preservation". We classified and analyzed the requirements for making such need credible; "Obligee's working and damage", "Obligor's working" and "Obligor's Bankruptcy". These requirements are not necessarily independent of each other but may be interrelated.

Based on the discussion, we believe that when one has become an obligor, one must recognize these three requirements and meticulously dispute the case by submitting concrete facts. To put forward the conviction that the Exhibit A does not fall

within the technical scope of patent is one option, but the court would go as far as recognizing "need for preservation" if the conviction was a self-righteous one. If the obligor had presented sufficient arguments for three conditions attached with concrete facts, the court will compare and weigh the damages of both parties and examine "need for preservation".

Once one becomes an obligee, one must take care to prove that the Exhibit A falls within the patent's technical scope with presumptive proofs and also to prepare prima facie evidences to prove "need for preservation".

With frequent disputes over intellectual properties among corporations, speedy resolutions are desired more than ever. Preliminary disposition can settle the matter in a short period of time even though it is a temporary measure, and its importance is expected to increase in view of time consuming litigations and invalidation trials. We are confident that our study on preliminary disposition will be of great interests to PIPA member corporations who can be obligees or obligors.

[Appendix]

Terms

Procedure of Application for Order for Preliminary Disposition

A right holder applies for an order for preliminary disposition as an obligee. The court hears the opinion of the obligor and decides to issue the order or to reject the application. When the application is rejected, the obligee can file an appeal against the decision. When the order for preliminary disposition is issued, the obligor can file opposition against the preliminary disposition to seek re-examination, application for cancellation of the preliminary disposition by not filing the trial, application for cancellation of the preliminary disposition due to the change in situation, and application for cancellation of the preliminary disposition because of "special situation". When the obligor files opposition or application for cancellation of the preliminary disposition, an application for suspension of the execution of the preliminary disposition can be filed on the ground to prevent irreparable damages attributable to the execution.

In application for the preliminary disposition order, the obligee must make credible "interests to be reserved" and "need for preservation".

Opposition against Preservation

Opposition against preservation is an application for re-examination of the issuance of the preservation order. Examination of the presence/absence of "interests to be preserved" and "need for preservation" is requested.

Cancellation of Preservation Order

On the premises that interests to be preserved and the need for preservation did exist at the time of the order, cancellation of the order is applied citing following reasons.

1) Non-submission of the trial
2) Change in situation
3) Special circumstance

Interests to Be Preserved

The fact that the obligee has the right and the obligor infringes that right.

In the case of a patent, the factual relation is such that the obligee owns a valid patent, the obligor works a technology that is within the technical scope of the patent, and the latter's working is not based on any right.

Proofs and Presumptive Proofs

Proofs in its broader sense of meaning is divided into two based on the degree of conviction of the judge.

Proofs:

The state where the judge is convinced of the presence of a fact that need to be proven or a party's efforts in submitting proofs to convince the judge. Conviction is the state proven beyond reasonable doubts regarding the existence of a fact. Recognition of a fact used as a ground to determine allowance/denial of the demand requires proofs.

Presumptive proofs:

The state where the judge is cognizant of the existence of a fact for the time being, or a party's effort in submitting proofs to achieve such a state. The degree of proof is lower than in the case of conviction. Presumptive proofs are limited to the case recognized in explicit writings, as a rule, but are often relied when a speedy action is required. Since presumptive proofs aim at a simple and quick examination of evidences, its method should be something that can be examined instantly (such as the witness present in the court or the written document brought to the court) (Article 267-1 of the Code of Civil Procedures), or may be the deposit of money or sworn statement (Article 267-2 of the Code of Civil Procedures).

Oral Proceedings and Examination

Significance of oral proceeding

(A) Oral proceedings as an act of litigation is

(a) Where a party orally states the application and the method of attack/defense as the ground (argument by the parties)

(b) Arguments by the parties and examination of evidences by the court

(c) Arguments by the parties, examination of evidences, presiding over the proceedings and passing of judgement by the court

(B) Oral proceeding as an act of proceeding is examination procedure made orally in front of the court

(C) Oral proceeding as a method of examination

A method of examination at an open court attended by both parties who present oral arguments where evidences are examined.

Examination

An informal procedure to give an opportunity to the parties or other interested parties to state their opinion. When oral proceeding is not given, the court at its discretion may decide to use the examination to complement the examination of documents. There is no need to set the date and summon the parties to the court, to open the procedure to public, or to give opportunities to both parties. These are differences from the oral proceedings.

Decision/ date	Type	Name	PD/ /interest/need	Court	Case No.	Source
04/27/61	Appln & Kouso-appeal	Constant amount spraying device case	N/X /NJ/N	Osaka HC	S34(ne)217	TKC
06/05/68	Opposn	Pack doubling as a suit cover case	Y/XX/Y/	Tokyo DC	S42(mo)2928	Hanrei Times
10/16/68	Appln	Stepping motor case	N/X /NJ/N	Tokyo DC	S42(yo)2589	Hanrei Times, TKC
08/27/69	Appln	Packing material for annular member case	N/X /N/	Osaka DC	S44(yo)2664	Tokkyo Kanri
10/29/69	Appln & Kouso-appeal	Watch band case	N/X /N/	Tokyo HC	S36(ne)1141	Jurist Hanrei Hyakusen
03/31/70	Cancel	Thermistor resistance device case	N/XX/N/	Urawa DC	S44(mo)1213	Hanrei Times
12/23/70	Appln	Clamp member case	N/X /N/	Osaka DC	S45(yo)3245	Hanrei Times, TKC
05/07/71	Appln	Toy block case	N/X /N/	Kyoto DC	S43(yo)579	Tokkyo to Kigyo
10/05/71	Appln & Koukoku-appeal		N/X /N/	Tokyo HC	S45(ra)151	Tokkyo to Kigyo
03/31/72	Appln	Tunnel tube extrusion method case	N/X /N/	Tokyo DC	S46(yo)2556	Hanketsu Sokuho, Tokkyo to Kigyo
07/21/72	Opposn	Tetracycline case	Y/XX/Y/Y	Tokyo DC	S46(mo)20184	Jurist Hanrei Hyakusen, Tokkyo to Kigyo
10/20/72	Opposn		Y/XX/Y/Y	Utsunomiya DC	S46(mo)122	Tokkyo to Kigyo
04/26/73	Appln & Kouso-appeal	Tunnel tube extrusion method case	N/ /N/	Tokyo HC	S47(ne)901	Hanketsu Sokuho, Tokkyo to Kigyo
07/20/73	Appln	Spral tube manufacturing device case	Y/XX/Y/?	Shizuoka DC	S48(yo)68	Hanketsu Sokuho
10/05/73	Appln	VB aliphatic acid ester manufacturing method case	Y/XX/Y/?	Urawa DC	S47(yo)47	Hanketsu Sokuho, Tokkyo News
11/05/73	Appln	Automatic chop-stick manufacturing device case	N/X /N/	Asahikawa DC	S48(yo)75	Hanketsu Sokuho
11/06/73	Oppsn	Spiral tube making machine case	Y/ /Y/?	Shizuoka DC	S48(mo)442	Hanketsu Sokuho

Decision/ date	Type	Name	PD/ /interest/need	Court	Case No.	Source
07/19/74	Appln	Lint remover for washing machine case	Y/XX/Y/?	Tokyo DC	S47(yo)2565	Hanketsu Sokuho
02/27/75	Oppsn & Kouso-appeal	Spiral tube making machine case	N/ /N/	Tokyo HC	S48(ne)2395	Hanketsu Sokuho
06/25/75	Appln	Pachinko-game machine case	N/X /N/	Shizuoka DC Hamamatsu branch	S48(yo)89 S49(yo)31	Hanketsu Sokuho
02/18/76	Appln	Buff grinder case	N/X /N/	Tokyo DC	S48(yo)2543	Hanketsu Sokuho
06/08/77	Appln & Koukoku-appeal	Lint remover for washing machine case	N/X /N/	Tokyo HC	S51(ra)858	Hanketsu Sokuho
07/26/77	Appln	Esters of VE nicotinic acid case	Y/XX/Y/?	Yokohama DC	S51(yo)578	Hanketsu Sokuho
01/20/78	Appln & Koukoku-appeal	Ion exchange water distiller case	N/X /N/	Tokyo HC	S52(ra)808	Hanketsu Sokuho
03/31/78	Suspen-sion of execu-tion	Esters of VE nicotinic acid case	Y/ /?/Y	Yokohama DC	S52(mo)2425	Hanketsu Sokuho
11/03/78	Appln & Koukoku-appeal	Insecticidal case cover case	N/X /N/	Tokyo HC	S53(ra)216	Hanketsu Sokuho
11/15/78	Appln & Kouso-appeal	Pachinko-game machine case	N/ /N/	Tokyo HC	S50(ne)1477	Hanketsu Sokuho
01/10/79	Appln	Dipyridamole case	Y/XX/Y/Y	Osaka DC	S53(yo)4589	Tokkyo Kanri, Hanketsu Sokuho
02/02/79	Appln	Anodized aluminium processing method case	N/X /N/	Chiba DC	S52(yo)100	Hanketsu Sokuho
05/23/79	Appln	Foldable box case	N/X /N/	Osaka DC	S54(yo)605	Tokkyo Kanri, Hanketsu Sokuho
05/25/79	Appln	Seedbed device case	N/X /N/	Niigata DC	S52(yo)5	Hanketsu Sokuho
10/16/79	Appln	Esters of VE nicotinic acid case	N/X /N/	Osaka DC	S54(yo)1503	Tokkyo Kanri, Hanketsu Sokuho
01/11/80	Appln	Folderable table for outdoor use case	N/X /N/	Osaka DC	S54(yo)4234	Tokkyo Kanri, Hanketsu Sokuho

Decision/ date	Type	Name	PD/ /interest/need	Court	Case No.	Source
02/28/80	Appln	Yodo container case	N/X /N/	Osaka DC	S53(yo)1983	Tokkyo Kanri, Hanketsu Sokuho
03/27/80	Appln	Trap door on the ceiling case?	N/X /N/	Osaka DC	S54(yo)994	Hanketsu Sokuho
04/10/80	Appln	Bath boiler cleaning method case	N/X /N/	Osaka DC	S54(yo)2738	Tokkyo Kanri, Hanketsu Sokuho
05/20/80	Appln	Seagle(Surpiroid) tablet case	Y/XX/Y/Y	Osaka DC	S54(yo)202	Tokkyo Kanri, Hanketsu Sokuho
06/16/80	Appln	Test tube stand case	N/X /N/	Osaka DC	S55(yo)1758	Tokkyo Kanri, Hanketsu Sokuho
07/16/80	Appln	Nursing pad case	N/X /N/	Nagoya DC	S55(yo)429	Tokkyo Kanri, Hanketsu Sokuho
12/15/80	Suspension of execution	Seagle(Surpiroid) tablet case	N/ /N/Y?	Osaka DC	S55(mo)9280	Tokkyo Kanri, Hanketsu Sokuho
03/18/81	Appln & Koukoku-appeal	Shutter winding wheel case	N/X /N/	Tokyo HC	S53(ra)1301	Hanketsu Sokuho
04/09/81	Appln	Shoes for watery environment case	N/X /NJ/N	Osaka DC	S56(yo)52	Hanketsu Sokuho TKC
09/02/81	Appln & Koukoku-appeal	Shoes for watery environment case	N/ /NJ/N	Osaka HC	S56(ra)185	Jurist Hanrei Hyakusen
10/19/81	Appln	Ceramic capacitor case	N/X /N/	Yokohama DC	S55(yo)957	Hanketsu Sokuho
10/29/81	Appln & Kouso-appeal	Continuous boiling of noodles case	N/X /N/	Tokyo HC	S55(ne)989	Hanketsu Sokuho
03/26/82	Appln & Koukoku-appeal	Excavator case	N/X /N/	Tokyo HC	S56(ra)345	Hanketsu Sokuho
07/20/82	Appln & Kouso-appeal	Paddy border forming method case	N/X /N/	Tokyo HC	S56(ne)609	Tokkyo Kanri, Hanketsu Sokuho
09/03/82	Appln	Sealed bottle case	N/X /N/	Nagoya DC	S56(yo)659	Tokkyo Kanri Hanketsu Sokuho
01/10/83	Appln	Bolt-finishing punch case	N/X /N/	Nagoya DC	S57(yo)804	Tokkyo Kanri, Hanketsu Sokuho
04/04/83	Appln & Koukoku-appeal	Clamp for mould case	N/X /N/	Osaka HC	S57(ra)25	Hanketsu Sokuho
04/22/83	Oppsn	Seagle(Surpiroid) case	N/ /N/	Osaka DC	S55(mo)9279	Tokkyo Kanri, Hanketsu Sokuho
05/16/83	Oppsn	Carbon equivalent measurement device case	Y/XX/Y/Y	Shizuoka DC Hamamatsu branch	S54(mo)221	Hanketsu Sokuho

Decision/ date	Type	Name	PD/ /interest/need	Court	Case No.	Source
05/27/83	Oppsn & Kouso-appeal	Automatic stopper for winnow case	N/XX/N/	Osaka HC	S56(ne)819	Hanketsu Sokuho
08/31/83	Appln	Food combination for instant Miso-soup case	N/X /N/	Nagano DC Matsumoto branch	S57(yo)98	Hanketsu Sokuho
04/18/84	Appln	Water addition method for rice grains case	N/X /N/	Nagoya DC	S56(yo)993	Tokkyo Kanri, Hanketsu Sokuho
04/21/84	Appln	Kuroshio Expo' jetcoaster case	N/X /NJ/N	Kouchi DC	S59(yo)43	Hanketsu Sokuho, TKC
07/02/84	Appln	Cover for truck case	Y/XX/Y/Y	Nagoya DC	S58(yo)1755	Tokkyo Kanri, Hanketsu Sokuho
08/30/84	Cancel	Lever hoist case	Y/XX/NJ/Y	Osaka DC	S59(mo)2765	Tokkyo Kanri
09/20/84	Cancel	Automatic cargo loader case	N/XX/NJ/N	Osaka DC	S59(mo)2907	Tokkyo Kanri TKC
10/24/84	Appln	Fine sand collecting device case	Y/XX/Y/Y	Nagoya DC	S58(yo)1312	Tokkyo Kanri
12/21/84	Appln	Automobile muffler case	N/X /NJ/N	Nagoya DC	S59(yo)1473	Tokkyo Kanri, Hanketsu Sokuho
12/22/86	Appln & Koukoku-appeal	Enceron tablet case	Y/XX/Y/Y	Nagoya HC Kanazawa branch	S60(ra)41	Hanketsu Sokuho TKC
06/29/87	Appln & Kouso-appeal	Boiler case	N/X /N/	Tokyo HC	S61(ne)3414	Hanketsu Sokuho
07/19/87	Oppsn	Herbicide case	Y/XX/Y/Y	Tokyo DC	S61(mo)6070	Tokkyo Kanri, Hanketsu Sokuho
09/01/87	Appln & Kouso-appeal	Radish sprout cultivating method case	Y/XX/Y/Y	Urawa DC	S62(yo)695	Hanketsu Sokuho
05/22/89	Appln	Magnetic disc for acupuncture needle case	N/X /N/	Osaka DC	S63(yo)4639	Tokkyo Kanri
09/20/89	Oppsn	Concrete mould separator case	Y/XX/Y/Y	Osaka DC	S63(mo)54761	Tokkyo Kanri, Hanketsu Sokuho
10/16/89	Appln	Dies mounting/ removing device case	Y/XX/Y/Y	Osaka DC	S63(yo)4063	Tokkyo Kanri
02/16/90	Cancel	Precast concrete gutter case	Y/XX/NJ/Y	Tokyo DC	H1(mo)7011	Tokkyo Kouhou, Hanketsu Sokuho
10/04/90	Appln & Koukoku-appeal	Pocket heater case	N/X /N/	Tokyo HC	H2(ra)406	Hanketsu Sokuho
10/22/90	Appln & Koukoku-appeal	Pocket heater case	N/X /N/	Tokyo HC	H2(ra)407	Hanketsu Sokuho

PIPA Database Coversheet

(1)	Title	:	Damages for Patent Infringement
(2)	Date	:	September 3, 1991
(3)	Source	:	
	1)		PIPA
	2)		United States
	3)		No. 4
(4)	Author	:	Richard C. Gaffney Annette M. McGarry
(5)	Keywords	:	Damages, Infringement, Litigation, Standard of Review, Appeal, CAFC, Lost Profits, Reasonable Royalty, Prejudgement Interest.
(6)	Statutory Provision(s)	:	35 U.S.C. 284,285
(7)	Abstract	:	The concepts of measurement and award of damages in patent infringement cases are discussed. Theories of measurement include lost profit and reasonable royalty. Either can be increased by an award of prejudgement interest. And the sum determined under either theory can be increased by the Court if necessary to compensate the patentee. Attorney fees can be awarded in exceptional cases.

DAMAGES

FOR

PATENT INFRINGEMENT

Mr. Richard C. Gaffney
Ms. Annette M. McGarry
September 3, 1991

PIPA SPEECH

DAMAGES FOR PATENT INFRINGEMENT

Overview

In the arena of monetary damages for patent infringement in the U.S., on the surface the law appears to be quite simple. In 1952, the modern law of patent accounting in the U.S. was ushered in with the enactment of 35 U.S.C. 284 and 285 set forth in the attachment.

You should carry away from this talk the following five reasons why it is inadvisable to infringe a valid U.S. Patent:

1. The Court can award patentee lost profits or some other measure of damages adequate to compensate for the infringement.

2. The Court can award patentee at least a reasonable royalty for the use made of the invention by the infringer.

3. The Court can award pre-judgement interest and costs to the patentee.

4. The Court may increase the damages award up to three times.

5. The Court may award reasonable attorney fees to the prevailing party in "exceptional" cases.

Prior History

Prior to 1952, the patentee was able to recover both the profits of the infringer and the damages suffered by the patent owner by such infringement. As you might appreciate, the patent owner had a difficult time proving the profits of the infringer. The purpose of the 1952 act was to eliminate the recovery of the "profits of the infringer" and allow recovery of only the patent owner's damages. This appears to be a reduction in possible damage awards to the patentee, but the Court is now able to "enhance" the damage awards up to three times plus add interest and costs and, in exceptional cases, attorney fees. It should be noted that there was some confusion in the courts on whether to exclude the infringer's profits until the Supreme Court in 1964 in (ARO Mfg Co. v. Convertible Top Replacement Co. 377 U.S.476; 141 USPQ 681 at 693 (1964) (Hereinafter "ARO II") decided, albeit in dicta, to define damages as what the patent owner loses by the infringement of his patent and thus exclude profits made by the infringer.

Prior to the establishment of the CAFC (1982), and because of the likely possibility that a patentee's damages award would be inadequate, even after successful litigation, the patentee was often prompted to work out a licensing situation at a minimal cost to an infringer. Why should a patentee spend large amounts of money to litigate against an infringer, if the infringer was found liable, the patentee still would recover minimally. In view of the situation, the patentee would license his rights and try to get whatever little he could. A vicious circle was established. Because proper damages were difficult to get, less than adequate license royalties became the norm. The less than adequate license royalties became the litigation standard damages which, in turn, acted to lower the license royalties even further if they were agreed upon before litigation.

The Federal Circuit in 1983 in the case of Stickle v. Heublein, Inc. 716 F2d 1550 adopted the ARO II definition of damages and thus put to rest any question of the recovery by the patentee of the infringer's profits.

Perspective

In an article by the Honorable Joseph V. Colaianni, he suggests that the establishment of damages - more than any other aspect of patent litigation - should be resolved by counsel and the parties (see "Patent Infringement Litigation From Opposite Sides of the Bench" - Honorable J. V. Colaianni et al. - Patent Resources Group (1984). The parties have the most expertise and knowledge and, in many cases, continuing business relations with each other, which should urge or dictate resolution of damages. Why then do so many decide to forego meaningful licensing negotiations in favor of having a Court apply Sections 284 and 285? While a gamble, it is submitted that many decide their chances of a higher return (or lower loss) are potentially better in court. As the case law develops and more consistency is seen in the interpretation of Sections 284 and 285, more parties will perhaps see the virtue of Judge Colaianni's suggestion.

In the U.S., the patent accounting trial is a separate trial which occurs after the liability trial. The key issues in the accounting trial are (1) the proving of damages by the patentee; (2) establishing a reasonable royalty; and (3) the methodology used by the Court for computing various aspects of damages. Usually the Court appoints a master to hear the complex details of the accounting. Discovery procedures are available but since the parties are frequently competitors, the sales, cost and other type of commercial information is deemed a trade secret and protective orders are frequently sought.

Winning at the District Court (trial level) is very important

since the Court of Appeals for the Federal Circuit (CAFC), which hears all patent appeals, tends to affirm. Very few patent cases reach the Supreme Court by writ of certiorari.

Standard of Review by CAFC

A recent key case in the damage area at the CAFC is SmithKline Diagnostics v. Helena Laboratories 926 F.2d 1161; 17 USPQ2d 1924 (decided Feb. 26, 1991). Judge Nies sets forth the standard of review of damage awards by the CAFC as "clearly erroneous". In order to reverse, the CAFC must, on the entire evidence, be left with the definite and firm conviction that a mistake was committed by the District Court. However, certain DECISIONS underlying damage theory are DISCRETIONARY with the District Court (such as the choice of accounting method for determining profit margin or the methodology for arriving at a reasonable royalty) and the standard of review for these decisions is "abuse of discretion". Both of these "standards of review" are high and thus it is not surprising that the CAFC tends to affirm the District Court.

Let us now return to the five reasons given above but in more detail.

(1) Lost Profits

The Smithkline case and many others cite four elements first set forth in Panduit Corp. v. Stahlin Bros. Fibre Works, Inc. 575 F2d 1152; 197 USPQ 72 for the proving of lost profits by patentee. These four elements are:

(1) Demand for the patented product,

(2) Absence of an acceptable non-infringing substitute,

(3) Patent owner's manufacturing and marketing capabilities to exploit demand, and

(4) Amount of profits patentee would have expected to make.

The patent owner has the burden to prove each and every element above with reasonable probability.

Usually the "demand" element is proven by sales figures. The "absence" of non-infringing substitutes frequently turns on the definition of what is an acceptable substitute. Element (3) turns on the facts; and element (4) can be "sensitive" to patentee i.e., involve "trade secrets". Element (4) can involve lost sales; price erosion and items of this nature. In Micro Motion Inc. v. Exac Corp., 19 USPQ2d 1001, (February 27, 1991), Micro was awarded over $4.8 million in lost profits PLUS over $14 million in price erosion (decreased sales prices due to infringer).

While the four element test of Panduit has been followed in many cases, the CAFC in a 1989 case said it is by no means the exclusive test (see note 13 in Uniroyal Inc. v. Rudkin-Wiley Corp., 13 USPQ2d 1192). This suggests the CAFC is open, perhaps even inviting, creative new ways for patentee to prove his damages.

(2) Reasonable Royalty

Should the patent owner fail to prove any of the four "Panduit" elements above, his damages shall "in no event" (35 U.S.C. 284) be less than a reasonable royalty. Note, however, our earlier comment that the Supreme Court in ARO II indicated, albeit in dicta, that the statute only allows a reasonable royalty (or other recovery) provided such amount constitutes "damages" to the patentee. Thus, if the infringer can show the patentee suffered

no "damages", then Section 284 et. seq. never comes to play., See Gustafson v. Intersystems Industrial Products Inc., 13 USPQ2d 1972 (February 1990) where the Court held a patent valid and willfully infringed but no damages were proven and therefore none were awarded!

In the SmithKline case, SKD failed to prove elements 2, 3, and 4 of the Panduit test and thus the Court turned to consider a reasonable royalty. Helena suggested a 3% royalty (Helena had other licenses in this general area in the 3-5% range) and SKD wanted 48% (which amounted to 50% of SKD's anticipated profits). The Court allowed a 25% royalty which amounted to about 25% of SKD's net profits.

Another interesting recent case is Slimfold Manufacturing Co. Inc. v. Kinkead Industries, Inc. 18 USPQ2d 1842 (CAFC - May 15, 1991). The District Court found Kinkead's Type I door infringed Slimfold's patent. Slimfold was awarded treble damages for wilful infringement plus attorney fees. The Court held that Slimfold had not sufficiently proved entitlement to damages based on lost profits but the Court did allow all of Kinkead's cost savings realized in making and installing the infringing door PLUS a reasonable royalty of 0.75% of the price of the entire door (claim claimed the entire door even though the improvement was the hinge).

The guidelines for the resolution of reasonably royalties is far from clear in the reported CAFC cases which, perhaps, leads away from desired party settlements. This perhaps is not surprising since a plurality of District Courts hear these accounting trials; each judge has "discretion" on royalty calculation methodology; and their decisions tend to be affirmed. Furthermore, the awards are tending to increase, thus perhaps encouraging patentees to go to an accounting trial once liability is established.

In Fromson v. Western Litho Plate, 7 USPQ2d 1606, 1612 (August 1988), the CAFC said:

"Determining a fair and reasonable royalty is often, as it was here, a difficult judicial chore, seeming often, to involve more of the talents of a conjurer then those of a judge".

Lacking an established royalty, the judge is left with "hypothetical negotiations" for "no statute instructs on how to compute an award" (Uniroyal Inc. v. Rudkin-Wiley Corp. 13 USPQ2d 1192) and thus the judge's discretion is employed and affirmed so long as it is just and reasonable.

The current technique for establishing a "reasonable royalty," in hypothetical negotiations is the "willing-buyer-willing-seller" rule Id.

This methodology seeks to reconstruct a negotiation between a reasonable, willing buyer and a reasonable, willing seller during the period between the issuance of the patent and the start of infringement, during which time parties who are acting reasonably, would have negotiated and signed a licensing agreement providing for a reasonable royalty.

In the normal course, profit governs license negotiations and, indeed, is the most important factor to consider. The buyer wants to maximize his profit from the use of the license, while the seller wants to maximize his royalty. Too high a royalty may deter a willing buyer and make it necessary for him to consider other alternatives, while too low of a royalty will be insufficient to induce a seller to license, particularly if it is to a competitor. In essence, what typically happens is that the buyer and seller look to see what level of royalty is acceptable to the seller, but will also induce the buyer to take a license.

It should be noted that the willing buyer-willing seller rule is only applied when an established royalty is not already in existence. For example, an industry-wide practice of licensing in certain ways may render the royalty calculations of TWM, Deere, Panduit, Tektronix, and Georgia-Pacific unapplicable. Aside from industry-wide standards or fundamentals of licensing, there may be an already established royalty for the patent in suit. Although the cases sometimes use industry royalty and established royalty synonymously, there is a distinction between the two. The industry royalty is one dictated by industry-wide practices which may be only partially related by analogy to the patent in suit. The established royalty is one established by the earlier acts of the patentee himself in attempts to secure a return from his patent by offer to license, assign or otherwise.

Despite the rule of general "affirming" of the District Court, the CAFC in Hughes Tool co. v. Dresser Industries Inc., 2 USPQ2d 1396 (April 1987) vacated an award of $132 million and remanded saying that a reasonable royalty of 25% was "clearly erroneous". Justice Friedman of the CAFC thought the 25% was NOT clearly erroneous. Contrast this with an approved 70% reasonable royalty in Hartness Int'l v. Simplimatic Engineering Co., 2 USPQ2d 1826. (May 1987).

Reasonable royalties very considerably as do awards as shown on the attached table for some representative cases since 1977. As can be seen from the table, the damages awarded in the various cases have very few consistencies among them. The State courts have nothing in common with the Federal courts, nor do the courts have any uniformity within themselves, in either Federal or State. Which leaves matters in a very confused state.

For example, in the recent Kodak - Polaroid case (16 USPQ2d 1587) it is worth noting that of the total award of $909,457, 567,

about half was prejudgment interest (later reduced to $873,158,971 due to clerical errors - see 17 USPQ2d 1711).

Another observation concerns three 1991 Federal Circuit cases, all of which have varied damage calculations. The Slimfold case awarded damages based on the cost savings of the product plus a reasonable royalty, Smithkline based damages on a 25% reasonable royalty rate and the Court in Micro Motion, based damages on lost profits for proven lost sales, price erosion and a reasonable royalty. The court will allow damages based on "lost profits" (or some other creative measure) provided the patentee's proofs are adequate. If the patentee fails in his proofs, the Court then turns and allows "at least" a reasonable royalty. As Micro Motion shows, the Court can apply a combination of lost profits and reasonable royalty as the facts so dictate.

The chart also shows that reasonable royalty rates can differ anywhere from 3% up to 70%. There is a tendency to award prejudgment interest in the more recent cases, and costs attorneys fees and treble damages are awarded at the court's discretion.

(3) Prejudgment Interest

Prejudgment interest is normally awarded (W.L. Gore Associates, Inc. v. Garlock Inc. 10 USPQ2d 1628 (February 1989) citing General Motors v. Devex Corp. 217 USPQ 1185 (1983). Prejudgment interest is normally from the date of infringement to the date of judgement (Nickson Industries Inc. v. Roy Manufacturing Co. 6 USPQ2d 1878).

The interest rate to apply is within the discretion of the Court. In the Micro Motion case discussed above, the Court accepted the corporate parents "sweep" accounts interest rate rather than one year T-Bills in view of evidence that Micro sweeps its cash accounts daily. In Micro, the interest amounted to over $15.4 million.

The Devex Corp. v. General Motors Corp., 8 USPQ2d 1151, (court Appeals, 3rd Circuit) September 15, 1988) the issues after some 30 years of litigation (including two trips to the Supreme Court) involved post-judgement interest and costs. In 1980 a Delaware court awarded $8.8 million in damages and $11 million in interest plus costs. It's a small wonder the judges are encouraging settlement by the parties.

Finally, in the Kodak-Polaroid case the amounts for damages and interest were about equal (about $450 million each).

(4) Increased Damages

The court has discretion to increase the damage award up to three times if the court believes this is necessary to compensate the patentee for the infringement.

Increasing or "enhancing" the damage award is not automatic even for willful infringement. In Ernster v. Ralston Purina Co. 18

USPQ2d, 1724 (D. Ct. E. Mo.), the Court indicated no increased damages in the absence of bad faith or unconscionable conduct. As another example, there was no enhancement of the award to Polaroid by Kodak.

On the other hand, the damage award in the Slimfold case above was trebled because the infringement was willful.

The CAFC in the recent SmithKline case report above said: " -- a reasonable royalty is ipso facto deemed adequate under the statute, absent circumstances for enhancement under 35 U.S.C. § 284". Such "circumstances" appear to be some bad faith or unconscionable conduct by the infringer. Only damages are trebled and not prejudgment interest (Trend Products Co. v. Metro Industries Inc. 10 USPQ2d 1531 (January 1989).

5) Attorney Fees

The Court is permitted to award attorney fees in "exceptional " cases. What makes a case "exceptional"? In general, some evidence of bad faith or unconscionable conduct. If the court finds "enhancement" of the award is proper, attorney fees are also usually awarded. In the Micro Motion case, the CAFC found the case was not "exceptional" and thus no increased damages or attorney fees were awarded. The appeal in the Slimfold case involved inadequate documentation regarding attorney fees but the CAFC indicated the District Court is, nonetheless, not relieved in finding reasonable attorney fees (Slimfold citing Norman v. Housing Authority of city of Montgomery 836 F2d 1292, 1393 (11th Circuit 1988).

In Gustafson, Inc. v. Intersystems Industrial Products Inc. 13 USPQ2d 1972 (February 1990), willful infringement was found for a device to remove samples from pressurized pipes. No damages were proven and thus none were awarded as noted earlier but attorney

fees were awarded.

Conclusion

Because the CAFC is realistically and fairly upholding damage awards designed to truly compensate the patentee, the nature and magnitude of damage awards is a significant factor urging parties to be realistic in negotiating a settlement regarding the damage phase and thus avoid a protracted accounting trial. The emotions and costs which can run high in the preceding liability phase may well act as a damper and harden or polarize positions regarding "damages". Perhaps a different team should be used to negotiate a damage settlement after liability is established to defuse their emotions. Preferably both liability and damage could be handled without the intervention of a court but this presupposes a willingness on the part of the patentee to license or settle and a willingness on the part of the infringer to stop infringing and pay past restitution or continue under appropriate licensing terms and conditions. As the CAFC through its decisions makes the guidelines more clear, parties should be more "willing" to settle.

T A B L E

	Case Name/Cite	Court/Year	Award	%Reasonable Royalty	Total Amount of Damages
1.	Textronix, Incorporated v U.S. 552 F.2d 343	U.S. Court of Claims 1977	Reasonable royalty	-	$2,129,808
2.	Devex Corporation v General Motors 8 USPQ 2d 1151	U.S. Court of Appeals, Third Circuit 1980	-	-	$19.8 Million
3.	Lam, Incorporated v Johns-Mansville 718 F.2d 1056	U.S. Court of Appeals, Third Circuit 1980	Lost profits, interest, plus attorney's fees	-	≈$1,639,824
4.	Gyromat Corporation v Champion Spark Plug, Company 735 F.2d 549	U.S. Court of Appeals, Federal Circuit 1984	Lost profits, reasonable royalty, interest	17.5%	$747,944
5.	TWM Manufacturing Company, Incorporated v Dura Corporation 789 F.2d 895	U.S. Court of Appeals, Federal Circuit 1986	Lost profits, reasonable royalty, interest, treble damages	30%	$36 Million

T A B L E

6.	Hartness International v Simplimatic Engineering Company 2USPQ2d 1826	U.S. Court of Appeals, Federal Circuit 1987	Reasonable royalty	70%	-
7.	Syntex Incorporated v Paragon Optical Incorporated 7USPQ2d 1001	U.S. District Court, District of Arizona 1987	Lost profits damages (doubled), interest, attorney's fees and costs	-	≈$17 Million in damages only
8.	Ryco. Incorporated v Ag-Bag Corporation 8 USPQ2d 1323	U.S. Court of Appeals, Federal Circuit 1988	Reasonable royalty	25%	-
9.	State Industries v Mov-Flo Industries 8 USPQ2d 1971	U.S. District Court, Eastern District of Tennessee 1988	Reasonable royalty plus interest	3%	$8,884,671
10.	Loral Corporation v B.F. Goodrich Co. 14 USPQ2d 1081	U.S. District Court, Southern District of Ohio 1989	Reasonable royalty, interest, plus attorney's costs	12%	$5 Million
11.	Modine Manufacturing Company 14USPQ2d 1081	U.S. District Court, Northern District of California 1989	Court "suggests" $14 Million plus interest	Court rejec-ted 28%	-

T A B L E

12. Uniroyal Incorporated v Rudkin-Wiley Corporation 13 USPQ2d 1192	U.S. District Court, Connecticut 1989	Lost profits plus interest	-	$12,497,454
13. ALM Surgical Equipment Incorporated v Kirschner Medical Corporation 15 USPQ2d 1241	U.S. District Court, South Carolina Greenville District 1990	Damages (trebled), plus interest	-	≈$3 Million
14. Beatrice Foods Company v New England Printing and Lithographing Company 14 USPQ2d 1020	U.S. Court of Appeals, Federal Circuit 1990	Damages plus interest	-	Originally $22 Million, remanded and back to CAFCX at $8,446,509 which was affirmed, "Because CAFC had no basis to reduce it." Remanded for treble damages.
15. Poloroid Corporation v Eastman Kodak 16 USPQ2d 1482	U.S. District Court, Massachusetts 1990	Lost profits, reasonable royalty, plus interest	-	$909,457,567 (reduced to $873,158,971 due to clerical errors).

§ 284. Damages

Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.

When the damages are not found by a jury, the court shall assess them. In either event the court may increase the damages up to three times the amount found or assessed.

The court may receive expert testimony as an aid to the determination of damages or of what royalty would be reasonable under the circumstances.

(July 19, 1952, c. 950, 66 Stat. 813.)

§ 285. Attorney fees

The court in exceptional cases may award reasonable attorney fees to the prevailing party.

(July 19, 1952, c. 950, 66 Stat. 813.)

PIPA Database Coversheet

(1)	Title	:	Cross Licensing Principles and Practice
(2)	Date	:	August 26, 1991
(3)	Source	:	
	1)		PIPA
	2)		United States
	3)		No. 4
(4)	Author	:	Peter D. V. Wilde
(5)	Keywords	:	Licensing, Disputes, Anti-trust, Cross Licensing, Domestic, United States, International, Value, Design Freedom
(6)	Statutory Provision(s)	:	
(7)	Abstract	:	The history of patent licensing in the United States over the past twenty years is briefly discussed. The respective risks and benefits associated with cross licensing in order to issue "design freedom" are discussed in depth.

CROSS LICENSING PRINCIPLES AND PRACTICE

Patent licensing can be divided into two categories. Parties frequently license patents, typically specifically identified patents and frequently single patents, after patent use by one of the parties has been identified and a patent dispute has arisen. Parties do the same thing in litigation, either during litigation as part of a settlement, or as part of a judgement after litigation. These options have already been discussed this morning. The other major category of licensing might be termed anticipatory licensing, and is entered into before any patent use is identified, typically even before any patent use has occurred, and sometimes even before the patent has issued or the invention made. It frequently takes the form of a cross license, and is the primary subject of this paper.

I should mention here that there are many in this audience that use patents the old fashioned way, to exclude competitors, and thereby influence market share. Cross licenses are not generally an issue with those of you who do that, but I hope you will find something of interest here, perhaps only to realize that cross licensing can get complicated, and is not always the best way to optimize the value of your patents anyway.

I'm going to begin with some historical perspective of patent licensing in the US because it gives a sense of where we are now in the spectrum of what I will call the quality of opportunity in patent licensing, and since history often repeats, it shows where we may be again if the patent climate takes a turn in another direction.

Some would say that in the US the patent incentive and the freedom to profit from patents in the 1970's marked a low point, and today - the 1990's - marks a high point. The period of decline to the low point in the 70's can be traced to the years just after WW2. Anti-trust suits brought by the US government in the late 1940's and early 1950's resulted in a flood of consent orders affecting large US companies in nearly every major industry. Most of these decrees contained severe punishments in the form of patent sanctions. Typically these patent sanctions included compulsory licenses, and "future" licenses, that is, patent owners were made to agree to license royalty free, or at a "reasonable" royalty, patents they might obtain for several years into the future. Needless to say, a "reasonable royalty" under those coercive circumstances was often not what we think of today.

Litigating parties that were threatened with this kind of penalty, even when they were allowed to charge a royalty, resisted vigorously, since this kind of penalty was regarded as very harsh. One District Court spoke of the penalty this way:

> "We may not take from the defendants all incentive for future endeavor by depriving them in advance of the rewards which might come to them from future patents and technology. Such result would discourage rather than encourage competitive research. To include here the future patents and new processes of large research organizations, sweeping in a vast variety of chemical products would be punitive as well as destructive of the driving incentive which has accounted for much of the remarkable development of the chemical industry."

The impact of the government suits in the 40's was evident immediately. The well known transistor agreements of 1952, for example, were responsive to the mood of that time, and provided for cross licensing of future patents of the parties. The licenses were for the life of the patents, and the royalty structure was pay/pay, with both parties obligated for the same rate.

By the 1970's, the climate for patents had deteriorated to the point where many companies either licensed broadly at modest rates, or did nothing with their patents, because more attractive alternatives didn't exist. In 1974, a study found that of 3666 patents tested in the US Federal Courts, 2016 - or more than half - were declared invalid. Not found "not infringed", but held invalid. The corresponding number that one would expect to be found invalid today by the CAFC would be about half that. In the face of these odds it is not surprising that US companies adopted defensive patent licensing strategies.

These defensive strategies can be summed up by a term familiar to all of us - "design freedom". Although many companies embrace design freedom as a patent policy, it is easy to conclude that it is strictly a defensive policy, since design freedom is what these companies would have if there was no patent system in existence.

It is also easy to reach the conclusion that patent owners that pursue a policy of design freedom expect to receive no substantial profits from their patents. They may use their patents effectively to stem losses, but they do not perceive their patents as a business investment that creates a positive business return. However, many feel that is enough.

Let me turn briefly at this point to the fundamental philosophy of patents and the justification that economists use for having a patent system. What do they say? They say that a patent system is established for the primary purpose - perhaps the sole purpose - of providing incentive for R&D investment. But there is little incentive when patents are used for design freedom, and not for a strategic business purpose.

Getting back to the question "isn't design freedom a perfectly adequate return for patent investment?" many will say "yes". It is appealing to a business manager of a company facing many competitors, each with a substantial R&D effort, to be free to use the fruits of all of that R&D investment without paying patent royalties. After all, the total R&D investment of the competitors may be many times the R&D investment of his or her company, and those companies probably have many more patents, collectively, than that manager's company. That simple argument is often used as the justification for a design freedom policy. But the argument is faulty, as you in this room know. The correct way to balance patent values is serially with your competitors, one on one, not collectively with them. And it should take proper account of the value each competitor receives from the use of your patents, and vice versa, and that value should factor appropriately the sales of the respective companies of product impacted by patents. The equation can be represented like this:

PORTFOLIO(a) x SALES (b) : PORTFOLIO(b) x SALES(a)

Both of these concepts - thinking of competitors in a patent context as individuals not as a collective body, and factoring sales into the balance of values, not just patent portfolio quality or R&D potential - are obvious to people like you who are versed in patents. But you will find that they are frequently overlooked or not understood by business people when discussing broad patent policy and licensing practices.

Once the businesspeople understand how to balance patent values between competitors, they can more easily identify the factors that produce a positive balance with each competitor.

The business factors that lead to a preferred position in the balance of patent values are these:

1. HIGH R&D TO SALES RATIOS
2. PRODUCTIVE R&D
3. EFFECTIVE PATENT PROCUREMENT

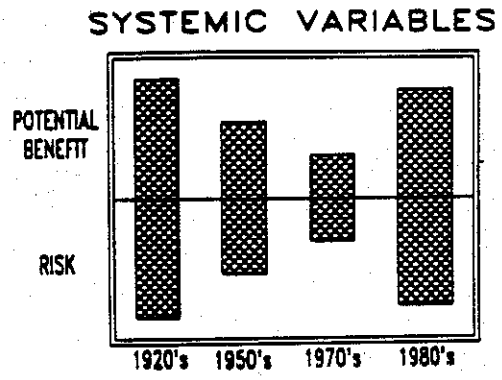
A business with these qualities should be in a position to have a positive balance of patent values with its individual competitors. It should consequently be in a position to benefit from patents in a competitive sense, especially during times when the systemic conditions for patents are favorable. And when patents are viewed this way we see a strong connection between patents and R&D investment incentive.

GRAPHING THE RISK BENEFIT FACTORS

The principles used in balancing values between companies and some of the related economic considerations can be illustrated with bar charts representing risks and potential benefits.

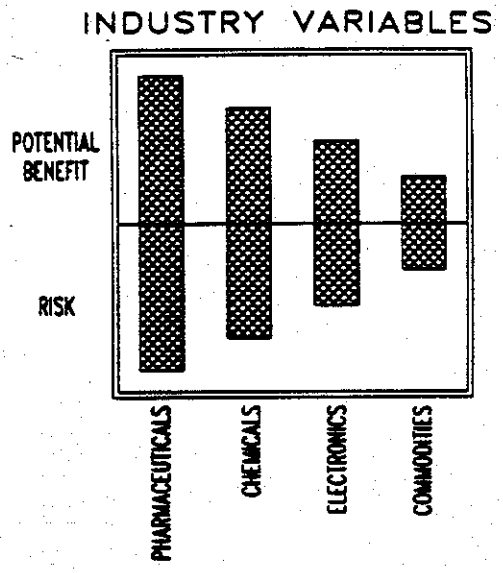
The first chart shows variations in the intrinsic value attached to patents. These are systemic, and attributable to a variety of factors, e.g. the hostility or sympathy given to patents by the Courts, the anti-trust climate, the value a company or an industry attaches to patents, etc. The value of patents is represented by the size of the bar. (Risk and potential benefit in the totality of an industry sum to zero.)

FIG. 1



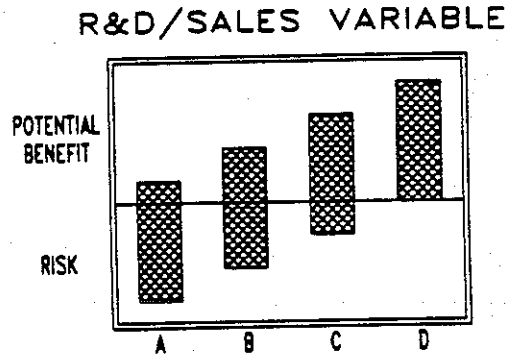
A similar graph by industry segment shows that patents are often valued differently by industry group. The high end values are attributed to use of patents by companies, e.g. the drug companies, that use patents to exclude and thereby leverage market share. The reasons for these differences are sometimes historic, or they relate to the nature of the technology of the industry.

FIG. 2



As I mentioned earlier, i.e. in the first vugraph, the patent risk vs. potential benefit relationship between companies depends on the ratio of patent portfolio quality to the value of product (sales) exposed to the patents of others. If we take R&D investment as a measure of portfolio quality, the ratio of R&D expenditures to sales gives a relative figure of merit for comparison. The productivity of R&D organizations, and the efficiency with which the company converts the R&D products into effective patents, are not accounted for in this particular graph.

FIG. 3



The graph shows four kinds of companies, A,B,C and D. Companies in the A category are typically high-technology start-up companies, or companies that deliberately avoid R&D overhead. B companies, or business units within a company, have average R&D to sales ratios. C companies have high R&D commitments relative to their sales. The D category would include individual patentees, patent holding companies, and universities, that is, those without sales and thus without vulnerability to the patents of others. The D category patentees hold the greatest patent risk to B and C companies but there is little the B and C companies can do, in terms of anticipatory licensing, to avoid that risk since the D companies have no incentive to cross license.

DYNAMICS OF RISK AVERSION

Studies show that risk aversion is common in licensing arrangements. The benefit given for avoiding risk nearly always takes the form of reduced royalty payments. If the benefit side of the equation is not carefully valued, i.e. has already been undervalued, this adds to the tendency to disproportionately trade royalties for risk. Accountability also biases the equation. It is usually easier to identify a failure to avert risk than it is to identify lost opportunities for additional royalty payments, because the failure to avert risk typically ends in a visible event like a lawsuit, or a threat of a lawsuit, or even an injunction.

The kinds of risks most often averted by cross license agreements relate to things like whether a blocking patent will issue, whether the patent will prove valid, whether the patentee will issue an improvement patent that could block the licensee's enjoyment of the current license, whether the licensee will develop an improvement on the basic invention patent and use it against inventor of the basic invention. The last two risks are related to patents issuing in the future, but are only narrow categories of "futures" as described earlier. The logic in the former is obvious, and the latter is based on the fact of the license putting the licensee in a position to make improvements that, in the usual case, the licensee would not be in, absent the license.

The business certainty, that is the certainty gained through design freedom and especially freedom from injunction, that comes with broad cross licensing and licensing of futures is a legitimate business goal. However, one should consider that competitors that agree to a broad cross license, with futures for example, are probably at substantial risk themselves. They are not the parties that are likely to sue you for patent infringement, or enjoin your business activities.

There is a form of cross license that is very simple in theory, and ideally suited to obtaining freedom from injunction. I must say that I have heard this discussed but not actually used, and its curious to me why. This license is like a mutual covenant not to enforce the right to exclude use of a patent or patents, but it retains the right to full payment for use. It might take the form of a patent license in which each party cross licenses the other under all existing or future patents at a rate to be negotiated. This is effectively simply an agreement to license rather than to exclude, although it clearly is a patent license. It is similar to the common form of cross license except that it does not try to anticipate and price patent values in advance of their development. Another way of reaching a similar result, that IS actually used frequently, is the so-called pay/pay agreement in which there again is no attempt to price patent rights in advance. This type of agreement is frequently easier to negotiate than the cross license resulting from balancing values because the rates are usually the same to each party, and only the level of rates needs to be negotiated. However, it is more difficult to administer than a paid up cross license.

I haven't said much about international aspects of licensing, but in these days when everyone talks of harmonization and globalization I suppose I should. In principle, the factors influencing licensing should be similar throughout the world. And in fact, most broad cross licenses provide for rights under patents of the parties held anywhere in the world. The aspect of international licensing that is more difficult to deal with is the one all of you confront every day, where to file. This subject is beyond the scope of my paper, mainly because it is complex enough to merit a paper itself. I will mention though a favorite issue of mine in this area that reaches into the heart of patent licensing policy, and for which I have never seen a satisfactory answer. It is a good illustration of why one needs a patent licensing strategy in place in order to drive a patent filing strategy, rather than vice versa, as seems to me to be so often the case. The issue is whether your filing selections should focus on the country of manufacture of infringing articles, or the country of use of infringing

articles. I have a colleague who recommends both, and even goes so far as to advocate, in appropriate cases, separate licenses, one to make and sell and one to buy and use, for products impacted by the same patent or patents. This answer of course invites lively debates over international patent exhaustion, and various other commercial and trade policy issues, and would be an extremely interesting subject for a future paper.

Thank you very much.