



PCT/TCO/SS/III / 16 ENGLISH ONLY DATE: September 6, 1972

WORLD INTELLECTUAL PROPERTY ORGANIZATION
UNITED INTERNATIONAL BUREAUX FOR THE PROTECTION OF INTELLECTUAL PROPERTY
GENEVA

PATENT COOPERATION TREATY

INTERIM COMMITTEE FOR TECHNICAL COOPERATION STANDING SUBCOMMITTEE

Third Session, Geneva, October 2 to 9, 1972

ADDENDUM TO DOCUMENT PCT/TCO/SS/III/9

Memorandum by the International Bureau

- 1. Document PCT/TCO/SS/III/9 contains a study of references cited during the prosecution of applications in the United States Patent Office.
- 2. In response to Circular letter No. 1462, which was addressed to the prospective PCT Authorities and which requested information on any recently undertaken studies on citation statistics or any comments on the comparability of their citations statistics with the findings of the study in document PCT/TCO/SS/III/9, the Patent Offices of the Netherlands, Germany (Federal Republic) and Sweden and the International Patent Institute submitted replies which are annexed to this document (see Annexes A, B, C and D, respectively).

 \overline{A} nnexes A, B, C and D follow \overline{A}

ORGANISATION MONDIALE DE LA PROPRIÉTÉ INTELLECTUELLE

Bureaux internationaux réunis pour la protection de la propriété intellectuelle (BIRPI)



WORLD INTELLECTUAL PROPERTY ORGANIZATION

United International Bureaux for the Protection of Intellectual Property (BIRPI)

Circular No. 1462 - PCT 081.5

July 4, 1972

Dear Sir,

./. The attached document (PCT/TCO/SS/III/9) is a progress report on the efforts of the International Bureau to collect or establish statistics on the proportion of non-patent literature to patent literature cited in patent application prosecution.

Your attention is drawn to paragraph 3 of the report which notes that the International Bureau would appreciate receiving from the prospective PCT Authorities, any additional statistical citation information now available in their Offices or general comments on the statistical report already submitted and annexed to the attached document.

In order to assure that copies of any information or comments submitted reach the other participants at least several weeks before the October 1972 meeting of the PCT Interim Committee for Technical Cooperation, you are kindly requested to make such submission to the International Bureau before August 31, 1972.

Yours sincerely,

Pfanner
Senior Counsellor
Head of the

Industrial Property Division

Octrooiraad

Willem Witsenplein 6 's-Gravenhage

Telefoon (070) - 264001 Postrekening 17300

uw brief van July 4, 1972 Uw nummer Circ. 1462 PCT 081.5 ons nummer S 72/320 bijlagen

datum August 3, 1972

onderwerp Proportion of non-patent literature to patent literature cited in patent application prosecution.

> Mr. K. Pfanner, Senior Counsellor, Head of the Industrial Property Division, WIPO, 32, chemin des Colombettes 1211 Geneva 20

Dear Sir,

- 1. With respect to the above subject the following information, derived from available statistics, relating to the prosecution of Netherlands applications for patents, is submitted in reply to your circular 1462.
- 2. An investigation conducted in 1958 with a sample of 100 applications

| produced the following | number o | f references | | percentage |
|------------------------|----------------|---|-------|------------|
| | per patents | application non-patent literature | total | non-patent |
| chemical division | 4.3 | 1.7 | 6.0 | 28% |
| electrical division | 6.1 | 1.1 | 7.2 | 15% |
| mechanical division | 5.7 | 0.1 | 5.8 | 2% |
| total | 5.3 | 0.9 | 6.2 | 15% |
| | | | | |

3. A similar investigation in 1968 produced the following:

| chemical division | 4.6 | 0.7 | 5.3 | 13% |
|---------------------|-----|-----|-----|-----|
| electrical division | 5.0 | 1.2 | 6.2 | 19% |
| mechanical division | 5.9 | 0.5 | 6.4 | 8% |
| total | 5.4 | 0.7 | 6.1 | 11% |

4. In 2. and 3. above, the numbers are the number of references listed on the internal scarch report; about helf of these are actually cited to the applicant.

5. In an investigation made in 1968 on the applications searched by a sample group of 10 examiners from the electrical division, the following information was obtained:

| | number of patents | references per non-patent literature | application total | percentage non-patent |
|--------------------|----------------------|--|----------------------|--------------------------|
| on search report | 6.8 | 2.0 | 8.8 | 23% |
| cited to applicant | 3.1 | 1.1 | 4.2 | 26% |

6. The contents of our search files developed as follows:

| | patents | non-patent literature | total | percentage non-patent |
|------|-----------|--------------------------|-----------|--------------------------|
| 1958 | 5,150,000 | 120,000 | 6,270,000 | 2% |
| 1968 | 7,460,000 | 460,000 | 7,920,000 | 6% |

It is remarkable that although as regards file contents the proportion of non-patent literature has tripled in these 10 years, the overall citation proportion decreased somewhat (halved for C, fair increase for E, strong increase for M).

- 7. It is remarked that part of the information of 3 and 5 above was earlier submitted in our reply to BIRPI circular 840 of May 20, 1969, in answer to the questionnaire STAC I no. 98.
- 8. For current searches, which now are mainly performed by the I.I.B., we have no intention to collect statistics ourselves, since we would expect the I.I.B. to do this.
- 9. With respect to the Annex of PCT/TCO/SS/III/9 containing a report from the US Patent Office, we offer the following remarks.
 - (i) The graphs show that in US citations of patents, US patents number 10 to 15 times as many as non-US patents. In the Netherlands citations of US patents number 3 to 4 times as many as non-US patents.
 - (ii) In judging the importance of the age of citations we prefer to indicate the proportion of patent citations published in a certain year to the total number of patents published in that year. Several years ago we found that this percentage for the most recent 5 years is about twice the average, and for older years comes down to about half the average with only very slow further decrease.
 - (iii) The proportion of non-patent literature citations is obviously much lower (about 3%) than in the Netherlands patent office (over 10%).

Yours sincerely,

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Lia

DER PRÄSIDENT
DES DEUTSCHEN PATENTAMTS

- Schweiz -

8000 MUNCHEN 2, den August 16, 1972

Zweibrückenstraße 12

Fernruf (08 11) 2 19 51

Fernschreiber 5 23 534

Fernrufdurchwahl (08 11) 21 95 Hausruf

Geschäfts-Nr.: 9330/10 - H5 Bd.II 6/72
Bitte in der Antwort die vorstehende Geschäftsnummer angeben.

Professor Dr. G.H.C. Bodenhausen Director General World Intellectual Property Organization (MIFO) 32, chemin des Colombettes CH 1211 Genf 20

Re: Circular No. 1462 - PCT 081.5 and Document PCT/TCO/SS/III/9 of July 4, 1972

Dear Professor Bodenhausen,

Referring to the above-mentioned letters I have the honor to inform you on my experiences with references cited in "isolated searches".

The two tables in the annex contain statistical data on publications ascertained in "isolated searches" from May to October 1971, and from March to June 1972. For the technological fields: mechanical engineering, mechanical technology, electrical engineering, chemistry, and physical science as well as for all technological fields together, an average of the number of publications ascertained and a breakdown according to DT patent literature, foreign patent literature, and non-patent literature are indicated.

With regard to the results, the following may be mentioned: the total of publications ascertained for all technological fields from Narch to June 1972 (the corresponding figures for May-October 1972 are bracketed) amounts to 5,3 (6,3). The percentage distribution is as follows: 48,3 % (46,5 %) DT patent literature, 49,6 % (47,6 %) foreign patent literature, 2,1 % (5,9 %) non-patent literature. While the proportion of German and foreign patent literature in the publications ascertained has been steadily increasing, the proportion of the non-patent literature has decreased. In my opinion, this is due to the effects of the new Patent Laws of France and Germany which have as a result that patent applications are published at an early date. It is a well known fact that the non-patent literature relating to recent fields of technology is of particular interest as the respective publications did so far appear earlier in the non-patent literature than in the patent literature. However, owing to the deferred examination, the periods concerned are changing in favor of the patent literature.

Sincerely yours,

Kohno

Dipl.-Ing. K.H. Köhne Vice-President

Annex

Statistics on the number of publications ascertained in "isolated searches", split up according to technological fields:

A. May to October 1971 (approx. 3 500 searches)

| Technological Field | Number of citations | DT patent literature average % number | | Foreign litera average number | | Non-pat literat average number | ure |
|---------------------------|---------------------------|--|---------------|--|---------------|---|--------------|
| Mechanical engineering | 6,6 | 2,90 | 43 , 9 | 3 , 46 | 52,4 | 0,24 | 3 , 7 |
| Mechanical technology | 4 , 5 | 2,16 | 48,1 | 2,12 | 47,1 | 0,22 | 4,8 |
| Electrical engineering | 9,0 | 4,26 | 47, 3 | 4,21 | 46 , 8 | 0,53 | 5 , 9 |
| Chemistry | 1,6 | 0,53 | 33,1 | 0,85 | 53,1 | 0,22 | 13,8 |
| Physical science | 4,4 | 2,34 | 53 , 2 | 1,62 | 36 , 8 | 0,44 | 10,0 |
| Average rate | 6,3 | 2,93 | 46,5 | 3,00 | 47 , 6 | 0,37 | 5 , 9 |

B. March to June 1972 (approx. 2 500 searches)

| Technological Field | Number of citations | literature | | Foreign litera average number | ature | Hon-pate literate average number | ıre |
|---------------------------|---------------------------|---------------|------|--|---------------|---|--------------|
| Nechanical engineering | 5,1 | 2,21 | 43,1 | 2,89 | 56,3 | 0,03 | 0,6 |
| Mechanical technology | 5 , 2 | 2,64 | 50,4 | 2,53 | 48,4 | 0,06 | 1 , 2 |
| Electrical engineering | 6,3 | 3 , 24 | 51,2 | 2,85 | 45,0 | 0,24 | 3 , 8 |
| Chemistry | 5,0 | 2,02 | 40,7 | 2,77 | 55 , 8 | 0,17 | 3 , 5 |
| Physical science | 4,6 | 2,72 | 59,6 | 1,69 | 37,1 | 0,15 | 3,3 |
| Average rate | 5,3 | 2,56 | 48,3 | 2,63 | 49,6 | 0,11 | 2,1 |

PCT/TCO/SS/III/16 Annex B page 2

PCT/TCO/SS/111/

ANNEX C

REGISTRERINGSVERKET

Stockholm, August 28, 1972

Mr. K. Pfanner
Senior Counsellor
Head of the Industrial Property Division
WIPO
32, chemin des Colombettes
1211 GENÈVE 20
Schweiz

Dear Mr. Pfanner,

Referring to your Circular No 1462, PCT 081.5 of July 4, 1972 I have the honour to inform you about a sample in the Swedish Patent Office concerning the citation of non-patent literature in relation to citation of patent literature.

The sample consists of patent applications examined during March and June 1972, together 2 939 applications. The total references cited was 7 447, of these 5 530 or 74 % was foreign patents, 1 477 or 20 % was Swedish patents and 440 or 6 % was non-patent literature.

The chemical fields have as expected the highest percentage of non-patent literature followed by the electrical fields.

In the enclosed table you will find the sample broken down to the head fields of technology.

Yours sincerely

withu linsh for

Torsten Gustafson

Deputy Director General

KUNGL PATENT- OCH REGISTRERINGSVERKET
STOCKHOLM
SWEDEN

Citations in patent applications examined during March and June 1972 (two months)

| Technological fields | Number patent application | Pater Fore: | | Citation Non-Patent Literature | | | |
|---|---------------------------------|----------------|---------|--------------------------------------|---------|-----|--------|
| Tele- communication | 34.4 | 470 | % 66 | 182 | % 26 | 56 | % 8 |
| Electricity | 383 | 760 | 80 | 153 | 16 | 34 | 4 |
| Power . Heating | , 301 | 581 | 79 | 143 | 20 | 7 | 1 |
| Production .Transportation | 464 | 1040 | 81 | 225 | 18 | 9 | ı |
| Building Textiles | 331 | 661 | 77 | 195 | 22 | 7 | 1 |
| Plastics - Foodstuffs | 244 | 550 | 75 | 124 | 17 | 61 | 8 |
| Inorganic Chemistry Metallurgy | 400 | 694 | 67 | 252 | 25 | 86 | 8 |
| Organic Chemistry Pharmaceuticals | 472 | 774 | 67 | 203 | 17 | 180 | 16 |
| TOTAL | 2939 | 5530 | 74 | 1477 | 20 | 440 | 6 |

INSTITUT INTERNATIONAL DES BREVETS

BOITE POSTALE 5021 - LA HAYE (PAYS-BAS)

TELEPHONES:

SIÈGE: (070)

SERVICE TECHNIQUE: (070) 24 54 77

ADRESSE TÉLÉGRAPHIQUE:

BREVPATENT

TELEX No. 31.651

VW/42/vn

Nr. G.H.C. BODENHAUSEN, Director General of the World Intellectual Property Organization, 32, Chemin des Colombettes 1211 GENEVE 20 - Suisse.

LA HAYE le July 26, 1972.

Λ

INSTITUT INTERNATIONAL DES BREVETS

Dear Mr. Bodenhausen,

Enclosed I am sending you a report with two annexes on the use of non patent literature.

Yours sincerely,

(P. van Waasbergen)

REPORT ON THE USE OF NON PATENT LITERATURE IN THE I.I.B.

During the years a number of studies have been carried out by the I.I.B. concerning the documents cited in its search reports. These studies referred as well to the category and the origin of the documents, as to their age. Results of these studies will be summarized hereunder.

A study was carried out by Mr. Putz in 1967 and a paper about it was read at the Stockholm General Meeting of ICIREPAT. The paper was afterwards published. The aim of the study was to get an answer to the question: what would be the influence on the searchresults of certain cut-off dates applied to the consulted documentation?

This study referred to a sample of 729 searches of which:

182 referred to chemistry

114 " " electricity

97 " " physics

336 " mechanical engineering etc.

All searches were performed during november and december 196 Some conclusions of the study were:

- a. Of the cited documents 8,8 % was to be considered as NPL.
- b. The proportion of cited documents relevant for the novelty to the total number of cited documents was substantially the same for patent and non patent literature.
- c. The age of the NFL documents was not considered. For patents, however, it became clear that a cut-off date of e.g. 1946 would have had as a result that 25 % of all cited patents (42 % of all German patents) would have been missed.

A study carried out by Mr. Phillips intended to investigate especially the use of RPL in I.I.B. searches. The study was based on "official searches" i.e. applications searched for the Netherlands and French patent offices. The sample taken in late 1970 had the following composition:

<u>B</u>•

Encl.

ANNEX D

| | overal | .1 C | E | M |
|--------------------------|--------|------------|-----|-----|
| Netherlands applications | 1018 | 489 | 383 | 146 |
| French applications | 651 | 354 | 144 | 153 |

C stands for Chemistry

E stands for Electricity and Physics

M stands for Mechanical Engineering etc.

The following results were obtained:

1. Documents cited:

| _ | Number of documents/ | overall | C | E | M |
|---|-----------------------------|---------|-----|------|-----|
| | application | 3,2 | 2,9 | 3,6 | 3,6 |
| - | % of NPL of total number of | | | | |
| | documents | 7.8 | 6.5 | 15.4 | 1.3 |

2. Age of NPL cited:

In the graph annexe 1 are indicated the cumulative totals of cited MPL as function of the age of the documents.

Moreover annexe 2 indicates in

Column A : number of documents bearing date of year in question

Column B : cumulative total of documents to date in question

Column C : cumulative total as percentage of total cited documents.

It is immediately clear from these annexes that the older NPL does not play an important role.

3. Influence of cut-off dates

- a. It is clear that any cut-off date for NPL leads to a loss of information, but this loss may be justified in view of the very low return obtained from the documentation involved. It is, however, always possible that a very old document contains the information the examiner is looking for. As an example it may be mentioned that the eldest NPL in the sample was an article dated 1398 and it was the only relevant document cited in the report.
- b. It is interesting to see which would be the cut-off dates at which the cited NPL falls to 1 % and 0,5 % respectively of the total cited documents:

| | 1% | 0,5% |
|---------|------|------|
| overall | 1958 | 1954 |
| C | 1956 | 1950 |
| E | 1956 | 1954 |
| М | 1967 | 1963 |

4. The division electricity and physics uses more NPL than the other divisions.

A short study carried out in 1972 but referring to a much smaller sample gave higher percentages for the NPL:

overall C E M % NPL 10,7 10,2 21,0 0,3

The different studies give the impression that the proportion of NPL is growing. The height of the proportion and the distribution over the divisions are very much influenced by the composition of the sample.

P. van Waasbergen

PCT/TCO/SS/III/IO Annex D page 2

ORDINARY SEARCH REPORTS DISTRIBUTION OF NPL ACCORDING TO DATE

| ANNEX: 1 PAGE CHIPULOTING TOTALS OF NOC. AS PERCENTAGE OF TATAL CITED OVERALL LECT/PINS. DIVISION CHEM COMEN COMEN | 1970 1969 1968 1967 1966 1965 1964 1963 1962 1961 | 6 59 100 92 81 62 48 39 46 | 731 725 666 566 474 393 331 283 | 7,8 7,7 7,1 6,0 5,0 4,2 | A 2 41 75 68 58 41 35 | 462 460 419 344 276 218 | 15, 4 15, 3 14, 0 11, 5 9, 2 7, 3 | 3 14 20 17 19 | 223 220 206 186 169 | 6,55 6,5 6,0 5,5 | 1 4 5 | 38 37 33 28 | 1,26 1,23 1,1 0,93 |
|--|--|--|--|--|----------------------------|--|--|---------------------------|---------------------------------|---------------------------|-------------|----------------------|-----------------------------|
| PERCENTIGE OF TOTAL CITED DOSMINITI OVERALL ELECTONS. DIVISION CHEM GREEN (SEE EVANOED CARPIN OF LOWER PORTION ON MEXT ANSE) 10 11 12 13 14 15 16 17 18 19 19 10 10 10 10 10 10 10 10 | 1969 1968 1967 1966 1965 1964 1963 1962 | 59 100 92 81 62 48 39 46 | 725 666 566 474 393 331 283 | 7,7 7,1 6,0 5,0 4,2 3,5 | 41 75 68 58 41 | 460 419 344 276 218 | 15,3 14,0 11,5 9,2 | 14 20 17 | 220 206 186 | 6,5 6,0 5,5 | 4 5 | 37 33 | 1,23 1,1 |
| b s | 1969 1968 1967 1966 1965 1964 1963 1962 | 59 100 92 81 62 48 39 46 | 725 666 566 474 393 331 283 | 7,7 7,1 6,0 5,0 4,2 3,5 | 41 75 68 58 41 | 460 419 344 276 218 | 15,3 14,0 11,5 9,2 | 14 20 17 | 220 206 186 | 6,5 6,0 5,5 | 4 5 | 37 33 | 1,23 1,1 |
| b s | 1968 1967 1966 1965 1964 1963 1962 | 100 92 81 62 48 39 46 | 666 566 474 393 331 283 | 7,1 6,0 5,0 4,2 3,5 | 75 68 58 41 | 419 344 276 218 | 14,0 11,5 9,2 | 20 17 | 206 186 | 6,0 5,5 | 5 | 33 | 1, 1 |
| b s | 1967 1966 1965 1964 1963 1962 | 92 81 62 48 39 46 | 566 474 393 331 283 | 6,0 5,0 4,2 3,5 | 68 58 41 | 344 276 218 | 11,5 9,2 | 17 | 186 | 5,5 | | | 1 ' |
| | 1966 1965 1964 1963 1962 1961 | 62 48 39 46 | 474 393 331 283 | 4,2 3,5 | 58 41 | 276 218 | 9,2 | | 1 | 1 | | | |
| | 1964 1963 1962 1961 | 48 39 46 | 393 331 283 | 3,5 | 1 | 218 | 1 | • | | 5,0 | 4 | 21 | 0,7 |
| | 1963 1962 1961 | 39 46 | 283 | 1 | 35 | | | 20 | 150 | 4,4 | 1 | 17 | 0,56 |
| | 1962 1961 | 46° | 1 | h 0 | | 177 | 5,9 | 10 | 130 | 3,8 | 3 | 16 | 0,53 |
| | 1961 | 1 | ł | 3,0 | 26 | 142 | 4,7 | 9 | 120 | 3,5 | 4 | .13 | 0,43 |
| | | 31 | 244 | 2,6 | 24 | 116 | 3,9 | 13 | 111 | 3,3 | 1 | 9 | 0,3 |
| | 1960 | | 198 | 2,1 | 13 | 92 | 3,1 | 17 | 98 | 2,9 | 1 . | 8 | 0,3 0,27 Pan |
| | | 40 | 167 | 1,8 | 19 | 79 | 2,6 | 19 | 81 | 2,4 | 2 | 7 | 10.23 in m |
| 1. 1 1/2 12 12 13 14 16 16 16 18 18 18 18 18 18 18 18 18 18 18 18 18 | 1959 | 28 | 127 | 1,4 | 16 | 60 | 2,0 | 12 | 62 | 1,8 | 0 | · - | ο, 17 ω× |
| 17 69 68 67 66 65 64 65 62 65 64 65 67 75 77 75 75 75 75 75 75 75 75 75 75 75 | 1958 | 17 | 99 | 1,0 | 10 | 44 | 1,5 | 6 | 50 | 1,5 | 1 | 5 | 0,17 |
| Dat€ | 1957 | 16 | 82 | p , 9 | 7 | 34 | 1,1 | 8 | 44 | 1,3 | 1 | 4 | 0,13 |
| | 1956 | 12 | 66 | Þ,7 | 9 | 27 | 0,9 | 3 | 36 | 1,0 | 0 | - | - |
| 45 | 1955 | 8 | 54 | D, 6 | 5 | 18 | 0,6 | 3 | 33 | 1,0 | 0 | - | - |
| 14 ANNEX: 1 PAGE 2 | 1954 | 3 | 46 | p, 5 | 2 | 13 | 0,4 | 1 | 30 | 0,9 | 0 | - | - |
| A3 CUMULATIVE TOTALS OF NPL RS PERCENTAGE OF TOTAL CITED | 1953 | 11 | 43 | 0,4 | 4 | 11 | 0,35 | 7 | 29 | 0,85 | 0 | - | - ' |
| 12 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | 1952 1951 | 3 | 32 | D, 35 | 0 | - | - | 3 | 22 | 0,6 | 0 | - | - |
| LI OVERALL DIVISION LO GHEM W | 1950 | 3 | 29 26 | D, 3 | 0 | - | - | 2 | 19 | 0,55 | 1 | 3 | 0,1 |
| APECH III | 1949 | 5 | 21 | 0,27 0,22 | 0 2 | 7 | - | 3 | 17 | 0,5 | 2 | 2 | 0,06 |
| 48 | 1948 | 1 1 | 17 | D. 18 | 0 | | 0,2 | 2 | 14 | 0,4 | 0 | - | |
| | 1947 | 1 | 16 | 0.17 | 1 | 5 | | 0 | 12 | 0,35 | . 0 | _ | - ' |
| | 1946 | 2 | 15 | 0, 16 | 2 | 4 | 0,1 | 0 | _ | _ | 0 | _ | _ |
| | 1945 | 3 | 13 | 0, 13 | 1 | 2 | 0,06 | 2 | 11 | 0,3 | 0 | _ | - |
| 64 | 1944 | 2 | 10 | þ, 1 | 0 | - | - | 2 | 9 | 0,26 | 0 | _ | - |
| | 1943 | v 1 | 8 | 0,08 | 1 | 1 | 0,03 | 0 | _ | - | | _ | |
| 01 | 1942 | ò | - | - | 0 | - | - | 0 | _ | _ | 0 | _ | _ |
| | 1941 | 0 | - | - | 0 | _ | - | 0 | _ | _ ' | 0 | _ | - |
| 1958 57 56 55 56 59 95 97 44 95 49 93 92 91 40 | 1940 | 7 | 7 | 0,07 | 0 | - | - | 7 | 7 | 0,2 | 0 | _ | - 1 |
| 0774 | and earlier | | | | | | | | | , | | | |