

Chapter 900 Prior Art, Classification, Search

- 901 Prior Art
 - 901.01 Canceled Matter in U.S. Patent Files
 - 901.02 Abandoned Applications
 - 901.03 Pending Applications
 - 901.04 U.S. Patents
 - 901.05 Foreign Patents
 - 901.05(a) Citation Data
 - 901.05(b) Other Significant Data
 - 901.05(c) Obtaining Copies
 - 901.05(d) Translation
 - 901.06 Non-Patent Publications
 - 901.06(a) Scientific Library
 - 901.06(b) Borrowed Publications
 - 901.06(c) Alien Property Custodian Publications
 - 901.06(d) Abstracts, Abbreviations and Defensive Publications
 - 901.07 Arrangement of Art in Examining Groups
 - 901.08 Borrowing References
 - 901.09 Missing Copies—Replacement
- 902 Official Publications and Indices of U.S. Patents
 - 902.01 Manual of Classification
 - 902.02 Definitions
 - 902.02(a) Search Notes
 - 902.02(b) Search Cards
 - 902.03 U.S. Patent Classification Indices
 - 902.03(a) Numerical
 - 902.03(b) Blue Slips
 - 902.03(c) Subclass Lists
 - 902.03(d) Count
 - 902.04 Classification Orders and Bulletins
- 903 Classification
 - 903.01 Statutory Authority
 - 903.02 Basis and Principles of Classification
 - 903.02(a) New and Revised Classes
 - 903.02(b) Scope of a Class
 - 903.03 Classification of Foreign Patents
 - 903.04 Stamping of Examiners' and Search Room Copies
 - 903.05 Transfer of U.S. Patents
 - 903.06 Ordering Official Cross-References
 - 903.06(a) Discovery of New Cross-References
 - 903.07 Classifying and Cross-Referencing at Allowance
 - 903.07(a) Cross-References—Keep Systematic Notes during Prosecution
 - 903.07(b) Issuing in Another Examining Group Without Transfer
 - 903.08 Applications—Assignment and Transfer
 - 903.08(a) New Applications
 - 903.08(b) Classification and Assignment to Examiner
 - 903.08(c) Immediate Inspection of Amendments
 - 903.08(d) Transfer Procedure
 - 903.08(e) General Regulations Governing Application Assignment
 - 903.08(f) Patent Classifier's Decision
 - 903.08(g) Transfer to Another Examining Group after Decision

- 903.09 International Classification of Patents for Inventions
- 903.10 Duties of the Post Classifier
- 904 How to Search
 - 904.01 Analysis of Claims
 - 904.01(a) Variant Embodiments within Scope of Claim
 - 904.01(b) Equivalents
 - 904.01(c) Analogous Arts
 - 904.01(d) Outlining Field of Search
 - 904.02 Conducting the Search
- 905 Miscellaneous
 - 905.01 Photocopy Orders
 - 905.02 Soft Copy Orders
 - 905.03 Orders for Patented and Abandoned Files
 - 905.04 Marking Examiners' Copies of Patents
 - 905.05 Charge for Pending Application Files

901 Prior Art [R-30]

Note rule 104(a) in § 707.

901.01 Canceled Matter in U.S. Patent Files [R-18]

Canceled matter in the application file of a U.S. patent is not a proper reference as of the filing date under 35 U.S.C. 102e, see *Ex parte Stalego*, 154 USPQ 52. However, matter canceled from the application file wrapper of a U.S. patent may be used as prior art as of the patent date in that it then constitutes prior public knowledge under 35 U.S.C. 102(a).

901.02 Abandoned Applications [R-30]

Rule 108. Abandoned applications not cited. Abandoned applications as such will not be cited as references except those which have become abandoned as a result of the filing and acceptance of a request under rule 139.

Where an abandoned application is referred to in an issued U.S. patent the disclosure of the application is incorporated by reference into the disclosure of the patent and is available to the public. See rule 14(b).

In *re Heritage*, 1950 C.D. 419; 86 USPQ 160 holds that where a patent refers to and relies upon the disclosure of a copending abandoned application, such disclosure is available as a reference. See also *In re Lund et al.*, 153 USPQ 625; 54 CCPA 1361.

It has also been held that where the referenced patent refers to a copending but abandoned application which discloses subject matter in common with the patent, the effective date of the reference as to the common subject matter is the filing date of the abandoned ap-

plication. Ex parte Clifford, 49 USPQ 152; Ex parte Peterson, 63 USPQ 99; and In re Switzer et al., 612 O.G. 11; 77 USPQ 156.

Published abstracts, abbreviations and defensive publications are references (§ 901.06(d)).

901.03 Pending Applications [R-30]

Except as provided in rule 11(b) pending U.S. applications are preserved in secrecy (rule 14(a)) and are not available as references. However, claims in one application may be rejected on the claimed subject matter of a co-pending application of the same inventive entity. For applications having a common assignee and different inventive entities claiming a single inventive concept see § 804.03.

Applications abandoned under rule 139 are treated as pending applications for limited time periods regarding interferences and the filing of a continuing application. (See § 711.06.)

901.04 U.S. Patents [R-35]

The following different series of U.S. patents are being, or in the past have been issued. The date of patenting given on the face of each copy is the publication date and is the one usually cited. The filing date, in most instances also given on the face of the patent, is ordinarily the effective date as a reference (35 U.S.C. 102(e)).

X-Series. These are the approximately 10,000 patents issued between 1790 and July 4, 1836. They were not originally numbered, but have been arbitrarily assigned numbers in the sequence in which they were issued. The number should *not* be cited. When copies are ordered, the patentee's name and date of issue suffice for identification. Copies in stock are arranged chronologically.

1836 Series. The mechanical, electrical, and chemical patents issued since 1836 and frequently designated as "utility" patents, are included in this series. A citation by number only is understood to refer to this series. This series comprises the bulk of all U.S. patents issued. Some U.S. patents issued in 1861 bear two numbers but only the larger number should be cited.

Reissue Series. Reissued patents (§ 1401) have been given a separate series of numbers preceded by "Re." In citing, the letters and the number must be given, e.g., Re 1776. The date that it is effective as a reference is the effective date of the original patent application, not the filing date of the reissue application.

A. I. Series. From 1838 to 1861, patents covering an inventor's improvement on his own patented device were given a separate series of numbers preceded by "A.I." to indicate Addi-

tional Improvement. In citing, the letters and the number must be given, e.g., A.I. 113. About 300 such patents were issued.

Plant Patent Series. When the statutes were amended to provide for patenting certain types of plants (Chapter 1600) these patents were given a separate series of numbers. In citing, the letters "P.P." and the number must be given, e.g., P.P. 13.

Design Patents. Patents for designs (Chapter 1500) are issued under a separate series of numbers. In citing, the letter "D" and the number must be given, e.g., D. 140,000.

ICIREPAT Numbers for Identification of Bibliographic Data on the First Page of Patent and Like Documents

The Paris Union Committee for International Cooperation in Information Retrieval Among Patent Offices (ICIREPAT) has approved revisions in INID Codes (ICIREPAT Numbers for Identification of Data) which became effective for use by the countries which apply such codes to their documents on January 1, 1973. A complete list of the Codes, as revised, appears below.

Changes in INID Codes which particularly affect their application to U.S. patents consist of the provision of the new codes [75] and [76] that are intended primarily for use by countries in which the national laws require that the inventor and applicant are normally the same. Use of the code [72] which was heretofore applied to U.S. patents has been discontinued and, in lieu thereof, codes [75] and [76], as appropriate, has been used effective with the patent issue of January 2, 1973.

The purpose of INID Codes is to provide a means whereby the various data appearing on the first page of patent and like documents can be identified without knowledge, of the language used and the laws applied. They are now used by a number of Patent Offices and have been applied to U.S. patents since Aug. 4, 1970. Some of the codes are not pertinent to the documents of a particular country and some which are may, in fact, not be used. Those codes which are not applicable to U.S. patents or not used are identified in the list below.

[10] Document identification

[11] Number of the document

[19] ICIREPAT country code, or other identification, of the country publishing the document

[20] Domestic filing data

[21] Number(s) assigned to the application(s), e.g. "Numero d'enregistrement national," "Aktenzeichen"

[22] Date(s) of filing application(s)

[23] Other date(s) of filing, including exhibition filing date and date of filing complete specification following provisional specification¹

¹ See footnotes on following page.

- [30] *Convention priority data*²
- [31] Number(s) assigned to priority application(s)¹
- [32] Date(s) of filing of priority application(s)¹
- [33] Country (countries) in which priority application(s) was (were) filed¹
- [40] *Date(s) of making available to the public*
- [41] Date of making available to the public by viewing, or copying on request, an unexamined document, on which no grant has taken place on or before the said date¹
- [42] Date of making available to the public by viewing, or copying on request, an examined document, on which no grant has taken place on or before the said date¹
- [43] Date of publication by printing or similar process of an unexamined document, on which no grant has taken place on or before the said date¹
- [44] Date of publication by printing or similar process of an examined document, on which no grant has taken place on or before the said date¹
- [45] Date of publication by printing or similar process of a document, on which grant has taken place on or before the said date
- [46] Date of publication by printing of similar process of the claim(s) only of a document¹
- [47] Date of making available to the public by viewing, or copying on request, a document on which grant has taken place on or before the said date¹
- [50] *Technical information*
- [51] International Patent Classification
- [52] Domestic or national classification
- [53] Universal Decimal Classification¹
- [54] Title of the invention
- [55] Keywords¹
- [56] List of prior art documents, if separate from descriptive text
- [57] Abstract or claim
- [58] Field of search
- [60] *Reference(s) to other legally related domestic document(s)*³
- [61] Related by addition(s)¹
- [62] Related by division(s)
- [63] Related by continuation(s)
- [64] Related by reissue(s)

Notes concerning the application of INID Codes to U.S. patents:

¹ This item is either not applicable to U.S. patents or, if applicable, is either not coded or not assigned this code.

² The respective specific data elements within this category are not individually coded. They are printed in a particular format under the caption "Foreign Application Priority Data" which is identified by the INID Code [30].

³ The specific data applicable to a particular patent is printed under the caption "Related U.S. Application Data." Where the relationship is due solely to division or to continuation and/or continuation-in-part, the data is identified by the appropriate specific INID Code, i.e., [62] or [63], respectively. Where the relationship is due to any combination of these two specific sub-categories, the data is identified by use of the generic INID Code [60].

- [70] *Identification of parties concerned with the document*

- [71] Name(s) of applicant(s)¹
- [72] Name(s) of inventor(s) if known to be such¹
- [73] Name(s) of grantee(s)
- [74] Name(s) of attorney(s) or agent(s)¹
- [75] Name(s) of inventor(s) who is(are) also applicant(s)
- [76] Name(s) of inventor(s) who is(are) also applicant(s) and grantee(s)

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

901.05 Foreign Patents

All countries do not issue their patent specifications in printed form. In some countries, there is a delay between the date of the patent grant and the date of publication. Generally, a foreign patent should not be cited as a reference unless the examiner has seen the patent.

Citation data pertaining to those countries from which the most patent publications are received are given in the following sections. Additional information can be obtained from the Scientific Library.

901.05 (a) Citation Data

Foreign patent publications that use Arabic and Roman numerals in lieu of names to indicate the date, show in order the day, month, and year. Roman numerals always refer to the month.

Japanese patent application publications show the date in Arabic numerals, by indicating in order the year of the reign of the present Emperor, the month, and the day. To convert the Japanese year of the Emperor to the Western calendar year, add 1925 to the Japanese year. For example: 40·3·6=March 6, 1965.

Foreign language, alphabetical lists of the names of the months, and of the names and abbreviations for the United States of America are shown on the following page. The lists set forth only selected, commonly encountered foreign language names, and do not include those which are similar to the English language names and thus easily translatable.

In using the lists, identification of the foreign language (except for Russian), is not necessary. The translation into English is ascertained by alphabetically locating the foreign language name on the list.

The list of the foreign language names and abbreviations for the United States is useful in determining whether a foreign language patent publication indicates the filing of a similar application in the United States.

Alphabetical List of Selected Foreign Language Names of Months

aaosto	August	maggio	May
goût	August	Mai	May
augusti	August	Maj	May
avřil	April	maja	May
březen	March	maraskuu	November
června	June	marca	March
červenca	July	mars	March
czerwca	June	Marts	March
décembre	December	März	March
dicembre	December	marzo	March
dubna	April	mei	May
elokuu	August	ottobre	October
febbraio	February	pazdziernika	October
Feber	February	prosinca	December
februari	February	rijna	October
février	February	settembre	September
gennaio	January	sierpnia	August
giugno	June	srpna	August
grudnia	December	stycznia	January
heinäkuu	July	syyskuu	September
helmikuu	February	tammikuu	January
huhtikuu	April	toukokuu	May
Jänner	January	unora	February
janvier	January	września	September
joulukuu	December	zari	September
juillet	July		
juin	June		
kesäkuu	June		
kvetna	May		
kwietnia	April		
leden	January		
lipca	July		
listopad	November		
listopada	November		
lokakuu	October		
luglio	July		
lutego	February		
maaliskuu	March		
maart	March		

RUSSIAN

август	August
апрель	April
декабрь	December
июль	July
июнь	June
май	May
март	March
ноябрь	November
октябрь	October
сентябрь	September
февраль	February
январь	January

Alphabetical List of Selected Foreign Language Names and Abbreviations for the United States of America

Amerikas Forenta Stater	Stati Uniti d'America
De Forenete Stater av Amerika	S. U.
EE. UU.	S. U. A.
E. U.	S. Z. A.
E. U. A.	V. St. A.
E. U. d'Am.	V. St. v. A.
Etats-Unis d'Amérique	Ver. St. V. Am(erika)
Sp. St. A.	Vereenigde Staten Van Amerika
Spoj. St. Am.	Vereenigde Staten Van Noord-Amerika
Spojene Staty Americke	Vereinigten Staaten Von Amerika
Stany Zjednoczone Ameryki	Voreneede Stater i Amerika

ICIREPAT Country Identification Code Letters

AU	Australia	FR	France	OE	Austria
BE	Belgium	GB	Great Britain	PO	Poland
CA	Canada	HU	Hungary	RU	Rumania
CH	Switzerland	IN	India	SF	Finland
CS	Czechoslovakia	IT	Italy	SU	USSR
DK	Denmark	JA	Japan	SW	Sweden
DL	East Germany	NL	Netherlands	US	USA
DT	Germany, Fed. Rep.	NO	Norway	YU	Yugoslavia
EI	Ireland				

901.05 (b) Other Significant Data [R-30]

Occasionally, the exact date of foreign patenting becomes material. In the case of Australia, Austria, East Germany, Great Britain, India, Ireland and U.S.S.R., it does not appear on the printed copies of the patents. If necessary, this information can be secured from the Scientific Library. For the effective dates of Belgian patents, see the Memorandum of March 2, 1959, which has been reproduced in 41 J.P.O.S. at page 440. For the effective dates of Italian patents, see the Memorandum of October 25, 1960 distributed to all examiners and published in 42 J.P.O.S. 795-8. Comments concerning German, French and Belgian procedure in granting patents are found in *Ex parte Gruschwitz et al.*, 138 USPQ 505. This case did not involve anticipation but the bar of foreign patenting under 35 U.S.C. 102(d). The Board of Appeals has held that a Japanese application was "patented" upon its publication date, *Ex parte Iizuka*, 171 USPQ 50.

Some countries issue patents of addition and they should be identified as such and, when separately numbered as in France, the number of the addition patent should be cited.

"Patents of addition" generally cover improvements of a patented parent invention and can be obtained by the proprietor of the parent invention. Inventiveness in relation to the parent invention need not be demonstrated and the term is governed by the term of the parent patent.

For citation of the number of pages of drawing and specification, see § 707.05 (e).

Some foreign countries list the references cited during the prosecution. These, especially if they are U.S. patents, may be helpful, either as references of interest to the examiner or to suggest an overlooked field of search.

FEDERAL REPUBLIC OF GERMANY

German allowed applications have been issued in printed form beginning September 1, 1955. Those printed from this date up to December 31, 1956, are captioned "Patentanmeldung." They should be cited as "German printed applications" and identified by the name of the applicant, the serial number of the application, and the date of publication. The applications printed after January 1, 1957, are captioned "Auslegeschrift" and have an additional number which is larger than 1,000,000 and which will be the number of the patent, if issued. This new number should be used instead of the original serial number. In addition to the above, data customarily given in citing foreign patents should be used.

German Utility Models (Gebrauchsmuster) may be used as references as prior patents, but not as prior printed publications since the full specifications are not printed effective as of their registration date. When necessary, the Librarian will obtain the complete text of the specification from the German Patent Office. A file of such copies is maintained in the Scientific Library.

NETHERLANDS

Netherlands applications, unless withdrawn, are printed beginning January 1, 1964. They are captioned "Octrooiaanvrage". They should be cited as Netherlands *applications* giving the number, date of publication, "Datum van ter inzagelling", name of applicant, "Aanvrager", and data customarily given in citing foreign patents.

GREAT BRITAIN

Certain British applications had become void and hence lack a date of acceptance. Nevertheless, they were given a number in the patent series. The date of publication (year only) is given following the statement "Printed for His Majesty's Stationery Office," and this should be cited.

British specifications prior to 1916 have printed in large heavy type at the head of the first page of the specification a number and year, as 1451 A.D. 1912. This, together with the name, as required by the rules, is always the proper citation of the patent. The year given at the head of the specification is either the year of filing or the year of acceptance, but in either case it is the official designation of the patent.

The year printed on the drawing is not always the year for correct designation of the patent. Where it is not, the correct year is shown by a small superior number or exponent placed to the right and above the serial number of the patent, as—

1910—No. 499 ¹¹
1912—No. 19421 ¹³

In instances of this kind the patent should be cited as No. 499 of 1911 or No. 19421 of 1913.

FRANCE

The date of recent French patents to be taken as the effective date *as a patent* for reference purposes is the date of the Official Bulletin of the French Patent Office (Bulletin Officiel de la Propriété Industrielle) in which the granting of the patent was announced. This date does not appear on the printed copies of the specifications of the patents. The printed copies give the date the patent was granted (délivré) and the number of the particular issue of the Official

Bulletin in which the granting of the patent was announced. The date of the issue of the Bulletin, if needed, may be obtained from the Bulletin itself in the Library and would be about five or six weeks later than the granting date. The granting date may be used for citation purposes but if the precise date is critical the effective date should also be given.

The date used as the effective date when the patent is used as a patent (rather than as a printed publication which date is later) has been the date on which the patent was granted, indicated on the printed copies by the word "délivré", as was established by decisions of the courts, the Commissioner of Patents, and the Board of Appeals. Owing to a change in the practice in the French Patent Office whereby the specifications of granted patents are now not available to the public until the date of the Official Bulletin, it is necessary to apply *In re Af Ekenstam*, 45 CCPA 1022, 256 F.2d 321, 1958 CD 402, 734 OG 290, 118 USPQ 349; and use the date on which the specification became available to the public as the effective date as a reference. This practice will apply to recent French patents, going back to number 1,148,401 announced in the Official Bulletin of July 11, 1957 and back to patent of addition number 67,251. No change in practice is indicated with respect to French patents prior to these numbers.

SWITZERLAND

The effective dates of Swiss patents are discussed in *Ex parte Reuge*, 115 USPQ 51 and in *Ex parte Appeal No. 194-38*, 1966 CD 31, 152 USPQ 70. It should be noted that two different systems are in operation in Switzerland. The majority of patents are issued without search and examination in the light of references, and the date used for these is the publication (veröffentlicht, publié, pubblicato) date. In two fields, inventions relating to time-keeping, and inventions relating to the non-mechanical treatment of textiles and fibers, applications are searched and examined in the light of the prior art and the procedure differs from that followed in the other cases; it follows, in general, the procedure in the Federal Republic of Germany as described in *Ex parte Gruschwitz et al.*, 1963 CD 859, 138 USPQ 505. Patents which have been issued under the examination system can be recognized from information given in the heading which refers to the publication of the application (the French and German language applications, *Demande publiée* and *Gesuch bekanntgemacht*, respectively). As in the German practice, when a case is found allowable by the examiner the application is published for oppo-

sition and the specification is issued in printed form (also referred to as *Auslegeschrift*, German and *Mémoire expose*, French). These printed copies have not been received by the U.S. Patent Office. If it becomes necessary in connection with a Swiss patent issued under the examination system to establish a date earlier than the date the patent was granted, the library can obtain a copy of the earlier printed application from the Swiss Patent Office.

901.05(c) Obtaining Copies [R-28]

Photocopies of foreign patents can be ordered by an examiner for placement in the shoes of a class in which he examines, if the patents would be of frequent use in that class (§ 905.01).

901.05(d) Translation [R-30]

Examiners may request translators in the Reference Section to assist them orally or with written translations of any specifications in languages with which the examiner is not familiar. (See § 901.06(a), *Translations—Requests for Translations*, and § 903.03, *Classification of Foreign Patents*, below.) Alternative versions of specifications, in English or other languages known to the examiner, can commonly be found. Searches for alternate versions are performed in the Stack Service Section of the Scientific Library. As a substitute for translation, this service materially reduces the apparent problem posed by a foreign language specification.

901.06 Non-Patent Publications [R-28]

All printed publications may be used as references, the date to be cited being the publication date. Recognized abbreviations of names of periodicals may be used in their citation (§ 707.05(e)).

There are some publications kept or circulated in every group and each assistant examiner should ascertain which are available in his group and whether or not any of them is likely to bear on any class assigned to him.

Science Abstracts of London, England provides the Patent Office with certain non-patent literature. This literature includes the following:

- A. A copy of the full text of the article;
- B. An English language abstract attached to the full text of the article;
- C. Bibliographic details;
- D. United States Classification including class and subclass, where necessary addi-

tional copies are provided. The International Patent Classification (I.P.C.) is provided on each document by the Scientific Library;

- E. A document identification number preceded by the alpha character S followed by an eight digit number (e.g. S00840001).

The United States classification as well as the International Patent Classification (I.P.C.) is placed on each document made of record and stamped "RECORDED" by the Scientific Library. No change in status of the document (e.g. changing classification, cancelling or adding of copies) should be made unless the Scientific Library is notified. Form PO-1122 should be used for this purpose. The form should include the document identification number, group art unit, status change and the name of the examiner. The completed form should be forwarded to the Foreign Patent Services and Records Section of the Scientific Library. If the status change involves placing additional copies of the document, the document should be forwarded along with the completed form to the Scientific Library where the additional copies will be made. If the change in classification places the "RECORDED" non-patent literature document in another examining group, the completed PO-1122 form should be attached to the document and forwarded to the new group. The examiner in the new group should complete the form and forward it to the Scientific Library.

Where a non-patent literature reference with a document identification number is cited, the identification number and the class and subclass should be included on the form PO-892.

The citation should be as follows: (S00840001) Winslow, C.E.A. *Fresh Air and Ventilation* N. Y., E. P. Dutton, 1926, p. 97-112, TH 7653. W5, 315-22.

If the cited document has a document identification number, it is not necessary to enclose a copy in the ROS folder.

901.06(a) Scientific Library [R-30]

35 U.S.C. 8. Library. The Commissioner shall maintain a library of scientific and other works and periodicals, both foreign and domestic, in the Patent Office to aid the officers in the discharge of their duties.

The technical literature, foreign patents and services supplied by the Scientific Library are important to the examiner for two primary reasons. In the first place, they provide material which must be known or searched to determine whether claims of applications are directly anticipated, and therefore unpatentable under the provisions of 35 U.S.C. 102. In the second place, in cases in which the primary

search indicates that there is some novelty as compared to any single reference in the art, the library handbooks, textbooks, periodicals, reports and other materials assist in deciding the question of patentable invention (35 U.S.C. 103). They enable the examiner to make a further study to determine whether the features novel in the particular combination searched would be obvious to a person skilled in the art from the general state of knowledge as reflected in the technical literature.

MATERIALS AVAILABLE

Foreign Patents

The Library receives foreign patents by exchange from almost all countries (26 countries) that print their patents. In most cases, two copies are received: one for the examiners' search files and one for the numerical set in the Library. Since July, 1969, the numerical set for the following countries has been placed on 16 mm microfilm reels: Canada, France (applications and patents), Germany (applications and patents), Great Britain, Japan, Netherlands (applications only), U.S.S.R., and Switzerland. The second copy of the foreign patent, with a translation of the main claim or an English language abstract, is sent to the examining group (§ 903.03). Patents on which there is no date of publication (Australia, France and Italy) show the date of receipt in the Library. Soviet and Bulgarian authors' certificates are date-stamped even though a "date of publication" appears thereon because there is some doubt whether "publication" means "printing."

Foreign Patent Journals

Most foreign countries issue official patent and trademark journals corresponding to the *Official Gazette*. Patent journals are shelved under country names in the patent collections, and with the numerical sets of those countries which print their patents. Trademark journals are retained for only 4 months. Most countries issue name indexes; some also issue classified indexes. These are shelved with the journals.

Books

A representative selection of books published in the United States and Great Britain in the fields of applied technology is systematically acquired by the Library. In addition to the English language books, there is a modest selection from French and German literature, mostly in the field of chemistry. There are also collections in the various examining groups of books and trade catalogs pertinent to the arts which they examine. The Design Patent

Group has a great many manufacturers' catalogs.

In selecting books and periodicals to be ordered, the Librarian and his staff obtain assistance from members of the examining corps, and suggestions concerning materials to be obtained are welcomed at any time. A monthly list of accessions is circulated to all examining groups at the beginning of each month and the books are placed on inspection in the Library for one week thereafter. Duplicate copies of books on this list, or any other pertinent book, may be ordered by examiners for use in the groups by addressing a memorandum to the Chief Librarian via the group director and the cost code clearance officer.

The books and trade catalogs procured for permanent assignment to the examining groups are recorded in the Library's main catalog, and copies of these books sometimes are available in the Library also.

Technical Periodicals

Over 1,500 technical periodicals are received. These include publications of many important scientific and technical societies. The list includes a number of titles in the design patent field and in fields of interest to non-examining areas of the Office.

Most of the periodicals received by the Library are circulated to examining groups. Once each year the Library sends to each group a list of all titles currently circulated to them with request for suggestions for changes. This systematic procedure does not preclude the requesting of subscriptions for new titles at any time, and the Library itself will occasionally add new titles. The Library is alert to new periodical publications and it acquires sample copies which it sends to groups likely to be interested with a request for review and recommendation.

An important part of the duties of each examiner involves constant inspection of non-patent literature pertinent to the class or classes that he examines. The Library has undertaken to assist in this time-consuming activity. In one subject area, articles are being pre-selected and classified under the U.S. system by an outside indexing service. In a subsection of the same subject areas, articles are being pre-selected by library staff members. Before addition to the search files, selections must be assigned a code number and microfilmed so that the library will have a record of search file contents and can reproduce material cited without pulling it from the files or from the library shelves. Before adding any non-patent literature to the files, examiners should forward the literature to

the Library for the assignment of code numbers and for filming.

LIBRARY SERVICES Non-Patent Literature

Encyclopedic works, published indexes, and abstracting vehicles which assist searches in patents and technical literatures are constantly increasing in number and quality. The Library welcomes suggestions for acquisition of available or forthcoming aids to searching. In conducting library searches, examiners are encouraged to supplement their own familiarity, skill, and available time by queries addressed to the Reference Section of the Library (Ext. 72957).

The Staff of the Reference Section (Ext. 72957) will assist examiners in the use of the card catalogs and other resources of the Library, in pointing out publications which will help examiners define the limits of the field of search, and in providing information for use in prior art searches. Upon request, it will provide bibliographies on given subjects. It will also accept requests for all information on specific subjects defined by keywords and/or class and subclass designation.

Main Catalog

This card catalog is located in the Reference Room and lists all materials in the Library, the Law Library and examining groups except patent specifications and government reports on microfiche. If an examiner finds that the book he desires is not on the shelf he may be able to ascertain through the card catalog that another copy is available elsewhere in the Office. Examiners sometimes acquire material independently of the Library, and it is important that any such material should be sent to the Library's Technical Processes Branch for cataloging to assure that it may be recorded for the benefit of the entire Office.

The Library of Congress classification scheme is used in classifying the books and bound periodicals. A printed outline of this scheme is kept on one of the reading tables on the second floor and a shorter outline is posted on the end of two of the book stacks. Examiners will find the outline helpful in determining the general subject area of the field in which they are interested. Catalog cards are made for the author, title when distinctive, and subjects. Bound volumes of periodicals are cataloged, classified and maintained on the bookshelves, while those which have not yet been bound are separately located in alphabetical order in a small reading room adjoining the Reference Room. Near the main card catalog, there is a separate card list-

ing of bound periodicals and foreign patent and trademark journals.

Foreign Patent Information

Upon request made to the Foreign Patent Services and Records Section (Ext. 73545) the Library will procure individual typewritten copies of patents from countries which issue, but do not print them. Where applicable, the dates of opening to inspection, of issuance and of publication will be requested of the foreign patent office. The copy of each patent so acquired is retained in a special file in the Foreign Patent Services and Records Section, and a photocopy thereof is submitted to the examiner. As requested by examiners, it performs searches in foreign patent journals to ascertain the dates of opening to public inspection, of grant or sealing, and of publication of specified foreign patent applications. It will also make searches to locate patents with an earlier date or in a more familiar language.

Loan of Books and Other Publications

General

All Library materials other than the books in the main reference collection in the Reference Room may be charged out at the circulation desk. Materials should be kept as briefly as possible, and ordinarily no longer than two weeks. Since all library materials are used for reference purposes, none may be taken outside of the Patent Office. Examiners may use the Commerce Department Library but may not charge out its books. Books needed from that Library for official use should be obtained through the Scientific Library by means of interlibrary loan as described in the following paragraph.

Interlibrary Loans

On request the Reference Section (Ext. 72959) will borrow from other libraries materials not available in the Scientific Library. In return for this service, the Library loans its materials to other libraries in the District of Columbia so that occasionally an examiner may find that the item he desires is unavailable. These materials which are out on interlibrary loan may be recalled for the examiner if required for immediate use. To borrow books from another library is costly in terms of both time and effort; therefore, it is library policy not to borrow materials unless strictly pertinent to official use. Law books cannot be borrowed by the Library for use by examiners in connection with law courses.

When a book or periodical is borrowed from another library, and cited in an Office action, a photocopy of the portion cited should be ordered immediately and placed in an appropriate class and subclass. This class and subclass should be cited in the Office action.

Publication Dates

Requests pertaining to the earliest date of publication or first distribution to the public of publications and patents should be made to the Reference Section. They can obtain the day and month of publication claimed by the copyright owner for United States publications and they will write to the foreign source.

Translations

Requests for Translations

Examiners may consult the translators in the Reference Section at any time for oral assistance in translating foreign patents or literature. Translations are made from all of the principal European languages and from Japanese. The Library will have required translations from other languages made elsewhere. (Ext. 73193)

Card Index of Available Translations

This index lists all translations which have been made by the Reference Section of the Library and a few others gathered from miscellaneous sources. The card file and over 10,000 translations of foreign patents and trademarks with some periodical articles and excerpts from books are located in the Reference Section. Translations, which are available to examiners and non-Office personnel, are indexed by country, patent or trademark number, and patentee or author. A copy of any translations coming to an examiner from outside of the Office should be furnished to the Reference Section so that it may make a copy for its files. In this case the source is indicated on the translation so that it will not be certified as an official translation of the Patent Office.

901.06(b) Borrowed Publications [R-30]

See § 901.06(a), Interlibrary Loans.

901.06(c) Alien Property Custodian Publications [R-23]

Applications vested in the Alien Property Custodian during World War II were published in 1943 even though they had not become patents.

Care must be taken not to refer to these publications as patents; they should be designated as A.P.C. published applications.

An A.P.C. published application may be used by the examiner as a basis for rejection only as a printed publication effective from the date of publication which is printed on each copy.

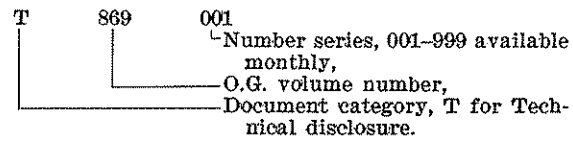
The manner of citing one of these publications is as follows: A.P.C. Application of -----, Ser. No. -----, Published -----

The Scientific Library contains a complete set of A.P.C. published applications arranged numerically in bound volumes.

901.06(d) Abstracts, Abbreviations and Defensive Publications [R-23]

Abstracts and Abbreviations are Patent Office publications of abandoned applications. Defensive Publications (the O.G. defensive publication and search copy) are Patent Office publications of a provisionally abandoned application wherein the applicant retains his rights to an interference for a limited time period of five years from the earliest effective U.S. filing date. See §§ 711.06 and 711.06(a).

Distinct numbers are assigned to all Defensive Publications published after December 16, 1969, for example.



Defensive Publications are included in subclass lists and subscription orders. The distinct numbers are used for all official reference and document copy requirements.

A conversion table from the application serial number to the distinct number for all Defensive Publications published before December 16, 1969 appears at 869 O.G. 687.

901.07 Arrangement of Art in Examining Groups [R-30]

In the examining groups the U.S. patents are arranged in shoes bearing appropriate labels, each showing the class, sub-class, and usually the lowest and highest numbered patents put in the respective shoe. The patents should be arranged in numerical order.

Some U.S. copies are marked "Cross Reference." These are patents which are classified

in other classes or subclasses but which have disclosures pertinent to the subclasses in which they are placed as cross references. Cross reference copies may be filed in the shoes along with the copies of the original patents to simplify the tasks of searching and filing.

Copies of foreign patents are usually kept in shoes separate from and immediately following the U.S. patents.

All foreign patent documents (patents and published applications) involved in a reclassification project issued after January 1, 1974 are filed by year of publication only, within each subclass. Each such foreign patent document has the year of publication written in red in the upper right-hand corner of the front page. It is anticipated that eventually all the classified foreign patent document search files will be arranged in this manner. This filing arrangement aids the examiner in updating his search as well as the Office of Patent Classification in the maintenance of the integrity of the search files.

Non-patent publications or photocopies thereof containing disclosures for particular subclasses, if numerous, should be filed in shoes following the foreign patents, otherwise at the bottom of the last shoe of foreign patents. [R-39]

901.08 Borrowing References [R-23]

The search files in each examining group should at all times be complete. Where they are incomplete, the examiners using such files and relying upon their completeness may miss valuable references. References removed from the files whether for use in the group or otherwise should, of course, be promptly returned.

901.09 Missing Copies—Replacement [R-42]

When the original or cross-reference hard copy of a reference patent is missing from the examiner's search files, a soft copy request form (PO-14) should be sent to the Office of Patent Classification. The box marked NOTES on PO-14 should include either the expression "Substitute for original" or "Substitute for official cross-reference" and also the classification information for the patent.

When the form PO-14 requesting a substitute copy is received by the Office of Patent Classification, it will provide a hard copy patent. If the original copy is subsequently found, the substitute copy should be removed from the file and discarded.

902 Official Publications and Indices of U.S. Patents

902.01 Manual of Classification [R-23]

The Manual of Classification is published in loose-leaf form, and supplementary sheets containing changes are issued from time to time to replace the original sheets.

All manual changes are effected by a series of Classification Orders each of which is currently published in the Official Gazette to the extent necessary to keep the manuals up to date. As these changes are published, each examiner should enter them in his manual, so that his manual will at all times be complete and up-to-date. As supplementary sheets are issued, the old sheets should be removed, and the new sheets substituted therefor.

There are over 300 classes of utility inventions each having a title descriptive of its subject matter and being identified by one of a series of class numbers (some numbers of the series are blank and not presently assigned to any class). Each class is subdivided into a number of subclasses with each subclass bearing a title descriptive of its subject matter and being identified by a subclass number which in many instances will include decimal fractions. A complete identification of a subclass requires both the class and subclass numbers, the class number appearing first and the subclass number second, e.g., "103-161" identifies Class 103, Subclass 161.

The Manual of Classification has the following parts:

A Brief Statement on the Use of the Manual.

Classes Arranged by Related Subjects. Tabulation of classes, in which the classes are arranged in three major subject groups, with the classes listed under each group by relationship of subject matter. This tabulation is for the purpose of assisting the user in finding the main class pertinent to his search.

Classes Arranged by Examining Groups.

Classes Listed Alphabetically by title.

Classes Listed Numerically with titles.

Subclass Schedules. Complete subclass schedules for each class, the utility classes appearing first in numerical sequence of class numbers, and then the design classes in numerical sequence of design class numbers. Design class alphabetical sequence by class names corresponds to numerical sequence. This is not true of the utility classes.

Alphabetical Index. Words and phrases (frequently called titles) identifying various characters of patentable subjects arranged in alphabetical order, with the citation of a class or both class and subclass in which subject matter identified by the title will be found.

902.02 Definitions [R-23]

All of the utility classes (i.e., classes devoted to technology) except a few unrevised classes have definitions. None of the design classes has definitions.

Such definitions state the subject matter that is found in each defined class and subclass much more explicitly than it is possible to state in short class and subclass titles.

Each examining group has at least one set of definitions and there are several sets in the Public Search Room. Additional or replacement sheets incorporating all changes and additions are issued from time to time and should be promptly added to each set of definitions.

902.02(a) Search/Notes

The definitions have search notes as a part thereof; namely, notes giving information as to where subject matter related to the class will be found (such notes appearing after the class definition), and also notes as to where subject matter pertinent to the subclass will be found (appearing after the subclass definition). These notes are intended to indicate both the relationship and the difference between the separately classified subjects.

Such search notes are not exhaustive and should be regarded as suggestive of additional fields of search, but not as limiting the search.

902.02(b) Search Cards [R-23]

In one shoe of each defined subclass in both the examining group and the Public Search Room is a "Search Card" having the definition of the subclass and the search notes if any.

902.03 U.S. Patent Classification Indices [R-23]

A number of indices of U.S. patents are available and may be used to obtain classification data of U.S. patents.

902.03(a) Numerical [R-42]

A numerical index of domestic patents giving their present original classification is available in the Public Search Room and in the Documentation Service Branch in the form of a microfilm viewer which is controlled by a mini-computer.

There is a separate index for each series, X, 1836, AI, Re, PP and D. Information as to both the original classification and official cross-reference classification of all U.S. patents is available from the patent index telephone, Ext. 73951. This is a multiple line telephone and problems with busy signals should be minimal.

Classification information is contained on strip microfilm with quick lookup available by use of a viewer connected to a mini-computer. The data is updated with new issues and reclassification projects.

902.03(b) Blue Slips [R-23]

The "blue" issue classification slips (Form PO-270), starting with patent number 1,987,000, RE. 19,228, D 126,796, P.P. 1, and for all subsequently issued patents, and containing the original classification and cross-references ordered at time of issue are on file in the Documentation Service Branch.

902.03(c) Subclass Lists [R-42]

Tabulated lists for each subclass can be obtained, one list for originals and one list for cross-reference and published abstracts of U.S. applications.

902.03(d) Count [R-39]

In the Service Branch of the Office of Patent Classification, is maintained a subclass "count," giving the number of U.S. patents originally classified in each class and subclass, and a corresponding "count" for cross-referenced U.S. patents.

902.04 Classification Orders and Bulletins [R-23]

Classification Orders are issued from time to time giving all changes in the classification that have been made officially, including every change to be made in the Manual of Classification or in the definition books.

Copies are distributed to all examining groups for immediate use.

Each order, except for those portions pertaining to the amendment of existing definitions, is subsequently printed in the Official Gazette.

These orders are from time to time collected and issued as a Classification Bulletin. As class schedules and definitions are extensively amended to take care of developments subsequent to original classification, they are republished in amended form in Classification Bulletins.

903 Classification**903.01 Statutory Authority [R-23]**

The statutory authority for establishing and maintaining a classification is given in the following statute, which states:

35 U.S.C. 9. Classification of patents. The Commissioner may revise and maintain the classification

by subject matter of United States letters patent, and such other patents and printed publications as may be necessary or practicable, for the purpose of determining with readiness and accuracy the novelty of inventions for which applications for patent are filed.

903.02 Basis and Principles of Classification [R-23]

The basis of classification used in the U.S. Patent Office, the principles followed, and the reasons why such principles were adopted are set forth in the booklet *Development and Use of Patent Classification Systems*, which is available in each art unit. Since classification is the basic tool of every examiner, this booklet, particularly as it relates to the present classification system, should be carefully studied.

Unofficial subclasses and digests made by examiners, if made in accordance with the plan of classification, could be defined and issued as an official part of the classification. See § 905.02 for procedure for ordering patent copies for use as unofficial cross-references.

Examiners establishing unofficial subclasses or digests should consult the patent classifier having jurisdiction of the class to the end that, when the work is completed, it can be defined and made official.

903.02(a) New and Revised Classes [R-23]

The establishment of new classes or subclasses and the revision of old classes are done under the supervision of a patent classifier.

The Classifier performing the reclassification secures a set of patent copies of the present classification, by either ordering soft copies or borrowing the Public Search Room copies. With these copies, by study and successive groupings, he develops an arrangement of the patents which is satisfactory for searching.

The lines marking the confines of the new or revised class and its subclasses are determined, and appropriate definitions drawn. Then the examiner's and the Public Search Room's copies of the patents included in the new class are collected, arranged and stamped conformably to the new classification. Official cross-references are also prepared and appropriately stamped.

The patents comprised in the new class are entered upon the numerical and subclass indices.

Notification of the new class or subclass is published in the Official Gazette, and Supplementary sheets necessary to correct the loose leaf Manual of Classification are published.

Definitions of all revised classes and subclasses are found in the Classification Bulletins.

903.02(b) Scope of a Class

In using any classification system, it is necessary to analyze the organization of the class or classes to be included in the search.

The initial analysis should determine which one or ones of the several types of subject matter (manufacture, art, apparatus or starting material) are contained in the class being considered.

Further, relative to each type of subject matter, it is necessary to consider each of the various combinations and subcombinations set out below:

Feature Combined with Basic Subject Matter for Some Added Purpose. The added purpose is in excess of the scope of the subject matter for the class, as defined in the class definition, e.g., adding a sifter to a stone crusher which gives the added function of separating the crushed stone.

Feature Combined to Perfect the Basic Subject Matter. Features may be added to the basic subject matter which do not change the character thereof, but do perfect it for its intended purpose, e.g., an overload release means tends to perfect a stone crusher by providing means to stop it on overload and thus prevent ruining the machine. However, this perfecting combined feature adds nothing to the basic character of the machine.

Basic Subject Matter. The combination of features necessary and essential to the fundamental character of the subject matter treated, e.g., a stone crusher requires a minimum number of features as essential before it can function as such.

Subcombinations Specialized to Basic Subject Matter. Each type of basic subject matter may have subcombinations specialized to use therewith, e.g., the crushing element of a stone crusher.

Subcombinations of General Utility. Each type of basic subject matter may have subcombinations which have utility with other and different types of subject matter, e.g., the machine elements of a stone crusher. Subcombinations of this character usually are provided for in some general class so that the examiner should determine in each instance where they are classified.

903.03 Classification of Foreign Patents [R-26]

Foreign patents are distributed by the Scientific Library to the examining groups with forms 1121 attached. The examiner should indicate the proper classification on both the foreign patent and form 1121.

If the foreign patent is not properly classifiable in his group, the examiner should suggest a group in which he considers it to be classifiable if possible and return it to the Scientific Library. Any indication of classification made by the Library is advisory only, and the final decision as to where the patent is to be placed is made by the examiner in whose art it is classifiable.

All subclasses in which a copy of the foreign patent is desired should be indicated on form 1121. The file clerk will order any necessary additional copies and place the classification indicated on form 1121 on them.

All foreign patents should be classified and forms 1121 returned to the Scientific Library by the due date indicated on form 1121.

If the examiner desires to update the classification of a foreign patent by changing, cancelling or adding copies, he should notify the Scientific Library by forwarding a completed form PO-1122.

It is helpful if the copy is either folded or disassembled and re-stapled so that the most significant sheet of drawing is exposed when the copy is in the shoe case. NOTE: Since the Library retains copies of these and other foreign patents (See § 901.06(a)), a desired foreign patent, known by country and number, can be inspected in the Library or photocopies ordered.

The Search Center forwards to the examining groups all United Kingdom, French, Swiss, German, Japanese and Soviet Union patents or published applications and only those other foreign patents or published applications which do not claim priority elsewhere. Duplicates from these countries should be retained in the files to comply with the minimum documentation requirements of the proposed Patent Cooperation Treaty.

Unnecessary duplicates should be destroyed.

When a partial translation is desired, return the patent to the Translation Section, Scientific Library, with the word "Title" or "Claim" or other specific portion indicated thereon.

The Library invites examiners confronted with language problems in classifying foreign-language patents to call upon its translators for oral language assistance to be provided at the examiners' desks. Examiners are accordingly encouraged to request this help by contacting the Translation Section by phone. Examiners are privileged to ask for specific translators if they so desire.

Time spent in classifying foreign patents is allowed in computing an examiner's output. The method used in classifying foreign patents and the assignment of such work among the

examiners of the group are left to the supervisory primary examiners. The hours spent by each examiner on this work are noted on the individual examiner's record of "Other" time (PO-690E).

903.04 Stamping of Examiner's and Search Room Copies [R-38]

Before each application in issue becomes a patent, the Issue and Gazette Division forwards the issue slip and the printed examiner's and Search Room copies of the patent to the Weekly Issue Section for stamping and recording of the classification of the patent, preparation of cross-references and transmittal to the examiner and Search Room on the date of the patent.

After they are so stamped and recorded, the photolithographic copies are retained in the respective classes in the groups and no changes in the classification or the arrangement of the copies are permitted except as set out in § 903.05.

The classification printed in the heading of patents issued since 1933 cannot always be relied upon to be the present original classification, since this data is obtained from the file wrapper of the application at time of issue and will not reflect any changes in classification made after the issuance of the patent.

903.05 Transfer of U.S. Patents [R-38]

The transfer of official copies of U.S. patents, either original or cross-reference, from one class or subclass to another requires the approval of a classifier.

Examiners must submit to the Office of Patent Classification all questions of transfer of patents.

When an examiner desires to transfer official copies of domestic patents to a different class or subclass, he should have a memorandum list prepared for signature of the primary examiner of the numbers of all patents which are to be transferred indicating only the class and subclass into which each is to be placed. Both originals and properly identified official cross-references may be included in the same list and these may involve transfers to or from any number of different classes or subclasses. Additional cross-reference copies of any listed patent may also be requested. This list with the examiner's copies of the patents is routed through any other group involved for its prompt approval or comment and is forwarded to the Office of Patent Classification.

In those instances where a transfer is approved by a patent classifier, the class and subclass designations on both the examiner and Public Search Room copies of the patents are changed and the numerical patent index and subclass lists are altered to agree with the new classification. When the transfer is not approved, the copies of the patents will be returned with a notification thereof.

Unauthorized transfers render the subclasses in the Public Search Room no longer dupli-

cates of those in the examiners' rooms, and also render incorrect the official numerical index and subclass lists.

When it becomes necessary in the course of a transfer to remove copies from the files in the Public Search Room, a dummy a little longer than a patent copy is substituted therefor, and the identification data of the patents withdrawn are written thereon.

The procedure for transferring an entire class or subclass from one group to another is given in the Manual of Clerical Operations.

903.06 Practice To Be Followed in Ordering Official Cross-References [R-43]

The following alternatives are available for obtaining official cross-reference copies of United States patents.

→ a. Send to the classification group a list of patents and relative to each patent, indicate the class and subclass in which it is thought each should be cross-referenced.

b. The preferred mode of ordering a cross-reference where the examiner has a soft copy with the pertinent portion marked, is to indicate on the marked soft copy the class and subclass in which it is thought it should be cross-referenced. Such soft copy should be
→ forwarded to the classification group where it will be promptly inspected, the necessary action taken and the soft copy returned within two days of its receipt.

903.06(a) Discovery of New Cross-References [R-43]

Patents which are useful as references may be found either in the course of a search or from inspection of the Official Gazette each week. Copies may be placed in the examiner's search files. See § 905.02.

903.07 Classifying and Cross-Referencing at Allowance [R-43]

It is the duty of each primary examiner to personally review the classification and cross-referencing made by his assistants of every application passed for issue and to print his full name on the blue issue classification slip to show that this review has been made.

Both the blue issue classification slip (PO-270) and the file wrapper provide spaces for the full names of the "Assistant Examiner" and "Primary Examiner."

An examiner with full signatory authority who acts on an application himself and sends it to issue should write his full name on the blue issue slip and stamp and initial the file wrapper *only* in the "Primary Examiner" space. A line should be drawn through the "Assistant Examiner" spaces on both the blue issue slip and the file wrapper to make it clear that the absence of an initial or signature in the box was not an oversight.

The initial classification of pending applications and the drawings thereof will have been indicated in pencil by the supervisory primary examiner. See § 903.08 (b).

However, an application, properly classified at the start of examination, may be improperly classified when it is ready for allowance. The allowed claims should be reviewed, in order to determine the subject matter covered thereby. It is the disclosed subject matter covered by the allowed claims that determines the original classification of U.S. patents.

Only the correct official classification should be left on the file and drawing of each application when passed for issue.

The examiner fills out a blue issue classification slip (PO-270) or a salmon slip (PO-328) in the case of designs to indicate the class and subclass in which the patent should be classified and also the classes in which it should appear as a cross reference. The examiner should be certain that all subclasses into which he places cross-references are still in existence. The examiner attaches the blue issue classification slip to the inside of the left fold of the file wrapper to be forwarded to the Patent Issue Division.

The examiner also enters the classification appearing on the issue classification slip in the space provided on the front of the file and in the space provided in the stamping at the left margin of the drawing. Care should be exercised to see that all three entries of the classification are correct and in agreement, particularly after any alteration of one entry, for otherwise the patent will be printed with an erroneous classification or improperly positioned in the Official Gazette.

All examiners are requested to fill in the class and subclass on the drawings in large numerals using as much of the space provided as feasible. In this way the filing of drawings and subsequent retrieval by the Patent Issue Division will be greatly aided. See also § 1302.10.

All examiners must include unofficial subclass designators on the blue issue slips (PO-270) at the time of issue when appropriate (excluding design classes). This applies to both the original classification and the cross-reference classification. Any time that a patent is being issued in or cross-referenced to a subclass containing unofficial subclasses, the alpha designation for the proper unofficial subclass must be included on the blue issue slip. No other designation is permissible. Inclusion of only the numeric designation of an official subclass which includes unofficial subclasses is an incomplete and improper entry on a blue issue slip. All official subclasses which have unofficial subclasses are now designated with an "R" (denoting residual) and if the patent does not fit an indented unofficial subclass, the blue slip should include the "R" designation. It is permissible to

place multiple copies of a patent into a single set of unofficial subclasses.

When the original patent is classified in an unofficial subclass (including the "R" subclass), the front of the file wrapper and the drawing should also include the alpha designation.

Digests should also be included on the blue issue slip, but the original classification must never be a digest. The indication for a copy of a patent in a digest must be in the cross-reference area of the blue issue slip and must be identified by class number, alpha characters DIG and appropriate digest number.

RESUBMISSION

The original classification assignment of an application may have involved a "borderline" situation. The file wrapper of such an application will be stamped, "RESUBMIT TO CLASSIFICATION DIV. _____, etc.", the stamp appearing below the Interference Search box. A "Special" tag should be attached to the file when resubmitted. Note that there should be no resubmission if there is, at the time of allowance, no longer any doubt or dispute about the proper classification.

In the case of oversized patents, where only a minor portion of the disclosure is pertinent to the subclass in which a cross reference is to be placed, the examiner may indicate on the issue classification slip that a digest of the patent should be prepared, thus, 74-340 (digest). After the hard copy is printed, the Issue Section of the Documentation Service Branch inquires of the examiner as to which sheets of the patent should constitute the digest. Where an official Classification Order affects an application already passed to issue, the classification group makes the necessary changes on the file wrapper, blue slip, and drawing, if any. The clerk of the examining group is notified so that the Serial Register card may be similarly changed.

Applications which already have been sent to the printer will be classified by the classification group at the time the patent issues.

903.07(a) Cross-Referencing—Keep Systematic Notes During Prosecution [R-23]

Throughout the examination of the case, systematic notes should be kept as to cross-references needed either due to claimed or unclaimed disclosure. Examiners handling related subject matter should be consulted during prosecution (whether they handle larger unclaimed combinations or claimed or unclaimed, but disclosed, subcombinations), and asked if

cross-references are needed. A cross-reference **MUST** be provided for all CLAIMED disclosure where possible and inserted on the blue issue classification slip at time of issue.

903.07(b) Issuing in Another Examining Group Without Transfer [R-43]

When an examiner issues a prospective patent in another examining group, he notes in the space provided on the blue issue classification slip, *in red ink*, the class and subclass of the other group, and in parenthesis the number of said other group. (The initials of said other primary examiner must also appear in said space.) In the lower left corner, the examiner writes his own group number in black ink. (When the patent issues, the classification group will, as a matter of routine, send the necessary notices to the group involved.)

The sending of cases to issue from one group and assigning them to classes in another group is restricted to those situations where both examiners concur in the proposed classification of the patent, which must be shown by the concurring examiner initialing the issue classification slip, or where there has been a ruling by a patent classifier, who must initial the slip.

903.08 Applications: Assignment and Transfer [R-43]

The examining group to which an application is assigned is responsible for its examination until such time as the application is officially transferred to another group by the classification group.

The primary examiners have full authority to accept any application submitted to them that they believe is properly classifiable in a class in their art unit.

903.08(a) New Applications [R-33]

New applications are assigned to the various examining groups in the first instance by the Application Division.

Upon receiving an application from Application Division, the clerk in charge of processing new applications, should date stamp the file wrapper and the back of the docket register card on the day the file is to be delivered to the supervisory primary examiner. The complete application (file, drawing, and serial register card) are then given to the appropriate supervisory primary examiner. The clerks should not permit these cases to remain overnight before distributing.

If the supervisory primary examiner decides that the application properly belongs in his art unit, it is processed as a new receipt. See § 903.08(b).

When a new application is received which, in the opinion of the primary examiner, does not belong to his group, he may request transfer to another group. See § 903.08(d).

Form PO-447, "Transfer Request" consists of five copies and is used as a transmittal, group charge and notification form.

If the search in connection with the first action develops art showing proper classification elsewhere, the transfer is initiated after a response is received from applicant.

BORDERLINE CLASSIFICATION

The classification assignment of an application to the proper examining group, especially when there is submission to and assignment by the classification groups, often involves a borderline situation. Classifiers in the classification groups, when assigning such borderline cases, will stamp the file wrapper directly below the interference search box when it is their considered opinion that the classification of such an application should be reconsidered on allowance. The stamp will indicate which classification group will reconsider the case on a "Special" basis.



903.08(b) Classification and Assignment to Examiner [R-35]

Every application, new or amended and including the drawings, if any, when first assigned to a group must be classified and assigned to an examiner for examination.

The supervisory primary examiner normally assigns them, noting in lead pencil in the space provided on the face of the file and in the upper left hand corner of the first sheet of the drawings, if the filing date is before January 1, 1972 or on the first sheet of the "pink" prints, if the filing date is after January 1, 1972, the class and subclass to which the case pertains, and also the name or initials of the examiner or the assigned docket designation. The application file is then turned over to the clerk for processing.

903.08(c) Immediate Inspection of Amendments [R-24]

Upon the receipt of an amendment which makes a transfer proper, steps should be taken promptly in accordance with the transfer procedure outlined in § 903.08(d).

903.08(d) Transfer Procedure [R-35]**TRANSFERS BETWEEN ART UNITS WITHIN THE SAME GROUP**

All "within the group" transfers must be called to the attention of the group clerk so that the examiner's docket record card and serial register card can be changed to correctly indicate the assignment of the application. The clerk must also report docket changes on the Examiner Docket Activity Report, PO-690.

Where there is a difference of opinion among the supervisory primary examiners as to assignment within the same group, the matter is submitted to the documentation "postman" for resolution. Note § 903.10.

TRANSFERS BETWEEN DIFFERENT GROUPS

Transfer of undocketed and docketed new and amended applications may be requested between groups via the regular messenger service without submission to, or approval by the Office of Documentation. However, the forwarding group must send the application to the receiving group with a transfer request, PO-447 (only the recent forms dated 9/70 or subsequently should be used), within one calendar

week of receipt in the forwarding group. Amended applications must be submitted within two weeks of the group receipt date of the amendment. If an application is not submitted within the time limit, it must be classified, assigned and retained in the original group.

Exceptions to these time limits are:

1. All new applications (docketed and undocketed) transferred to Group 220 purely for security reasons.
2. New undocketed applications which are hand carried.
3. New applications docketed prior to July 14, 1970.

Where a supervisory primary examiner believes an application does not belong in his group, he dates and completes form PO-447 by giving a full explanation of the reasons for classification in the other group art unit. In the space provided on the form at least one of the following must be included:

- (1) Identification of the controlling claim examinable in another group.
- (2) Identification of any existing informal transfer agreement.
- (3) Other reasons—with full explanation.

The supervisory primary examiner may give the complete file with form PO-447 attached, to his transfer clerk for forwarding by regular messenger service, or he may obtain the docket record card from the clerk and hand carry the entire file to the other group art unit. The group clerk retains part PO-447(d) of form PO-447.

If the receiving examiner agrees to accept the application, he classifies and assigns the case and initials the form PO-447 and the face of the file wrapper. The transfer is effected by the clerk in the group which accepts the application by transfer. Application Division is notified by PO-447(a) and the forwarding group is notified by PO-447(e).

If the other examiner does NOT agree to accept the application within one week of receipt, he indicates his reasons and adds his initials on the form PO-447 in any available space. Where acceptance of an application is refused by the second group within one week of receipt in the second group, it may be submitted to the documentation division associated with the forwarding group for decision. If an application is not refused within the time limit, the second group must keep and examine the application.

Failure to fill in the date on the form by either the transmitting examiner or the receiving examiner may result in the assignment of the application to his art unit.

Transfer inquiry after expiration of the time period may be made by hand carrying the ap-

plication directly to the second group for possible acceptance. If it is accepted, the transfer is effected, but if it is refused, the original group must keep and examine the application.

Transfer of amended applications (any application having a response to an action by the Patent Office) may be requested by using the regular messenger service, if transfer is initiated within two weeks from the group receipt date of the response. The procedure for requesting transfer of such an amended application is similar to the procedure for requesting transfer of a new case. The time limit for initiating transfer of an amended application is two weeks from the group receipt date of the response. The procedure for hand carrying an amended application is also similar; if accepted after the two week period, the transfer may be effected, but if refused the case remains in the initiating group. The time limit for refusing the transfer of an amended case is one week, as for new applications.

The question or need for a restriction requirement does not enter into the determination of transfer.

PROCEDURE IN THE DOCUMENTATION DIVISION

The classifier may assign the application in accordance with the forwarding examiner's recommendations or, when this is not appropriate, to some other group. He writes the assigned class and group art unit numbers and his initials on the face of the file wrapper and on PO-447, briefly giving his reasons in the space provided on the form.

Where the change results in assignment of an application to a class under the jurisdiction of another documentation division, the classifier obtains the concurrence and signature on PO-447 of a classifier in the other documentation division.

As heretofore, under certain circumstances a classifier may, contrary to controlling classification rules, assign an application to a class or group which in his judgment is better equipped to examine the application. This is fully described in paragraph 6 and 9 of § 903.08(e); see also the last paragraph of § 903.08(a). Assignment by the classifier becomes final, and no transfer should be accepted without the classifier's initials on the face of the file wrapper.

RECONSIDERATIONS

The supervisory primary examiner of the group art unit to which an application is transferred may request reconsideration provided that group art unit has not seen the application before the transfer, if he believes the

classifier's assignment is in error, by briefly stating his reasons on a new form PO-447 and sending it with the application to his documentation division. Only one such request will be accepted. The classifier having jurisdiction of the class in which the application is assigned considers the matter and writes his decision on PO-447. However, reconsideration may not be requested by a forwarding group when an application is returned by a classifier for examination.

Full clerical procedures for transferring applications are set forth in section 1205 of the Manual of Clerical Procedure.

903.08(e) General Regulations Governing the Assignment of Applications for Examination [R-32]

The fact should be borne in mind that the following regulations are only general guides, and exceptions frequently arise because of some unusual condition. The fact should also be kept in view that the patent classifiers as well as the patent examiners are confronted with an already existing classification, made up of newly revised classes, those revised years ago and which have somewhat outgrown their definitions and limits, and still others made a generation ago and never changed. Also, these classes are based on different theories and plans, some on art, some on structure, some on functions, some on the material worked upon, and some apparently, on no theory or plan at all. The patent classifiers cannot change this existing condition as each application comes up for assignment but must seek to dovetail the cases into the patchwork and try to get the applications where they will be best handled. To do this often violates the patent classifier's views as to what constitutes a really proper classification.

1. The assignment of applications follows, as far as possible, the rules or principles governing the classification of patents. (See the booklet *Development and Use of Patent Classification Systems*.)

2. The most comprehensive claim, that is the claim to the most extensive combination, governs, and this is true whether there is only one such claim and a large number of other claims, or whether the sets of claims are more evenly divided. It is regarded as just as vital that one complex claim be searched and adjudicated by an examiner skilled in the art as that a group of such claims be so searched and adjudicated.

3. The claims and statement of invention are generally taken as they read, since any attempt

of a patent classifier to go behind the record and decide the case upon what is deemed the "real invention" would, it is believed, introduce more errors than such action would cure. The patent classifiers cannot possess the specific knowledge of the state of the art in all the classes that the patent examiners collectively possess. Further, such questions are matters of merit for the examiners to determine and are often open to argument and are subject for appeal.

4. The location of the United States patents constituting the prior art is generally controlling over all else. (Note: Where time permits, obvious misplacements of the patents constituting the prior art are corrected, but to straighten all lines as the cases come up for assignment would require the time of several men and would often involve a reclassification of an entire class.)

5. Ordinarily an application cannot be assigned to a class which includes one element or part only of several claimed in combination. The claim is treated in its entirety. The question of aggregation is not reviewed by the patent classifiers.

6. The patent classifiers are authorized in all cases, where they evaluate the facts as warranting it, to assign applications for examination to the group best able to examine the same. Since assignment for examination on this basis will at times be contrary to classification of patents containing the same character of claims, the patent classifiers will indicate the proper classification of the patent, if such claims are allowed.

Thus in cases where there is a claim drawn to hybrid or mixed subject matter and the supervisory primary examiner in one discipline feels that the application requires consideration by, or may be best examined by, a group in one of the other technical disciplines, chemical, electrical, or mechanical, he may submit the application to his patent classifier who *may* assign the application on a "best examinable" basis, in accordance with this subsection.

Some examples of applications which may be thus submitted include:

(1) An application containing a hybrid claim wherein, for instance, a product is defined merely in terms of the process for producing it. See § 705.01(e)(1).

(2) Where an application properly assigned to a mechanical or electrical class contains at least one claim to mixed subject matter, a part of which is chemical, the application *may* be assigned to the appropriate chemical art unit for examination; or where the application is

properly assigned to a mechanical class and a claim therein contains electrical subject matter, the application *may* be assigned to the appropriate electrical art unit for examination.

As indicated earlier, when an application which had been assigned for examination in accordance with this subsection ultimately is allowed, it will be classified according to the controlling claim. In effect, assignment for examination may be on a "best examinable" basis, but the provisions of this subsection, the patent to the rules of superiority in classification; thus, the search file will have a constant set of rules governing placement of patents therein.

Where an application is being reassigned from one examining discipline to another, under the provisions of this subsection, the patent classifiers are authorized to require the first examiner to cite references pertinent to the claimed features falling under the jurisdiction of the art within his discipline. In those cases wherein the application of the reference(s) is not evident or clear, the first examiner should include a brief statement explaining the relation and possible application of the reference(s) to the claim(s); in case of dispute as to the necessity of this procedure, the patent classifier has power to require the statement.

7. When an application has been taken up by an examiner for action and a requirement to restrict is found necessary, a part of the claims being directed to matter classifiable in the group where the case is being examined, an action requiring restriction should be made without seeking a transfer of the case to another group. The action of the applicant in response to the requirement for restriction may result in making a transfer of the application unnecessary.

8. Ordinarily where all the claims of an application are for an article made of a specific composition or alloy with no other characteristic of the article recited, the application will be assigned to the composition or alloy class.

9. A class of cases exists in which either no art or a divided art is found and in which no rule or principle is involved. (Such cases are placed where, in the judgment of the patent classifiers they will be best searched and adjudicated. It is often impossible to so explain a decision in this class of cases as to satisfy, or in any way aid, the examiners interested. Indeed, the reasons for or against sending such cases one place or another may be so evenly balanced that no reason of any value can be given.

10. An examiner seeking the transfer of a case may make a search, both of his own class and the class to which he thinks the case should be transferred, and the examiner in charge of

the art unit should exhibit the result of such search to the classification groups. This is the way the expert knowledge of the examiners involved is utilized.

903.08(f) Patent Classifier's Decision [R-43]

→ A classifier in a classification group decides the question of the proper classification of the application, and either (1) returns the application to the group which submitted it if he denied the transfer request, or (2) forwards the application to the group to which it is transferred. See also § 903.10.

903.08(g) Transfer to Another Examining Group After Decision [R-43]

→ If the application is to remain in the group which submitted it for classification, no further procedure is necessary. If assigned to another group, the classification group processes the case as described in the Manual of Clerical Procedures.

If the case is one which had been taken up for action by an examiner according to its effective filing date, it should be treated as special by any examiner, art unit, or group to which it is transferred. See § 708.01.

903.09 International Classification of Patents for Inventions [R-43]

→ In accordance with the Strasbourg Agreement Concerning the International Patent Classification, the United States is required to indicate on its issuing documents the classification symbols of the International Patent Classification 1974 (Second Edition), hereinafter referred to as "Int. Cl.²".

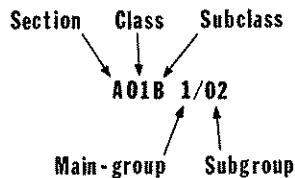
The complete Int. Cl.² symbols must be placed in the indicated space on the Issue Classification Slip (form PO-270) as revised 7/74 when an application or Defensive Publication Document is issued.

BASIC INT. CL.² STRUCTURE

The Int. Cl.² is arranged as follows:

Section	Subclass
Subsection	Main-group
Class	Subgroup

This can be graphically illustrated thus:



Section—Subsection

The Int. Cl.² is divided into eight main sections designated by capital letters A through H, and then, into subsections (*without any designating symbol*):

- A. Human necessities:
Subsections: Agriculture
Foodstuffs and tobacco
Personal and domestic articles
Health and amusement
- B. Performing operations:
Subsections: Separating and mixing
Shaping
Printing
Transporting
- C. Chemistry and metallurgy:
Subsections: Chemistry
Metallurgy
- D. Textiles and paper:
Subsections: Textiles and flexible materials not otherwise provided for
Paper
- E. Fixed constructions:
Subsections: Building
Mining
- F. Mechanics, lighting, and heating:
Subsections: Engines and pumps
Engineering in general
Lighting and heating
Weapons; blasting
- G. Physics:
Subsections: Instruments
Nucleonics
- H. Electricity:
Subsection: Electricity

Class

Each section or subsection is divided into classes which are designated by a two-digit number following the section designation.

Example:

A01—Agriculture; Forestry; Animal Husbandry; Hunting; Trapping; Fishing

Subclass (Corresponding to U.S. Class)

Each class is divided into subclasses which are designated by a capital letter.

Example:

A01B—Soil working in agriculture or forestry

Main-group (Corresponding to U.S. Mainline Subclass)

Each subclass is divided into units referred to as main-groups which are identified by a

number to the left of a diagonal slash and 00 to the right thereof.

Example:

A01B 1/00 Hand tools

Subgroups (Corresponding to U.S. Indented Subclasses)

Main-groups may be divided into subgroups which are designated by a number (other than 00) to the right of the diagonal slash.

Example:

A01B 1/02. Spades; Shovels

CLASSIFYING IN THE INT. CL.² SYSTEM

Patents should be classified as far as possible as a whole and not by separate classification of constituent parts.

A. *Selecting subclasses* (Corresponding to U.S. Class)

In the Int. Cl.² there often occurs:

1. A subclass providing for the inherent nature or function of the invention, and
2. a subclass for its intended field of use.

Preference must be given to the intended field of use unless the invention is clearly specially adapted to a particular intrinsic function for which a class exists. The classifier must decide whether the invention is specially adapted to one field of use, or whether it is applicable to more than one particular field. It may, of course, be desirable to classify the invention in both places (intrinsic function and intended field of use); especially when the choice of a single place rests on the classifier's opinion rather than on fact.

B. *Selecting Main-groups* (Corresponding to U.S. Mainline Subclasses)

There are no firm rules of hierarchy. Frequently, there will be two or more main-groups which seem equally relevant, requiring a choice among them or classification in more than one of them. Contrary to U.S. practice, in which the more comprehensive subject matter appears first in the schedule, in the Int. Cl.², these inventions may be found in the lower part of the schedule.

C. *Selecting Subgroups* (Corresponding to U.S. Indented Subclasses)

An invention should be classified in the lowest (most indented) subgroup which is sufficiently comprehensive to embrace all essential features of the invention.

A detailed procedure for classifying a document into the Int. Cl.² is set forth in Chapter IV of the "Guide" to the Int. Cl.² which is located in the front of Volume I.

The Int. Cl.² contains 51,436 subdivisions, an increase of 8.8% over the previous edition.

In order to distinguish classification between the 1st Edition, hereinafter referred to as "Int. Cl.", and Int. Cl.², all classification according to Int. Cl.² can be identified by the notation "Int. Cl.²" preceding the international symbols.

The Int. Cl.² symbols are distinguishable from those of Int. Cl. in that the Int. Cl.² subclass symbol will be designated by a capital letter rather than a lower case letter.

Example:

(1st Edition) Int. Cl. A01b 1/02

(2nd Edition) Int. Cl.² A01B 1/02

U.S. INT. CL.² CONCORDANCE, THIRD EDITION

The Office of Patent Classification has prepared a revised Concordance between the U.S. classes and subclasses and the Int. Cl.². In many areas the two systems are conceptually different. With this in mind, it will be seen that a complete one-to-one correspondence between the two systems cannot be attained. An indication in the Concordance may refer to only one relevant group, and not necessarily the only group in which the patent can or should be classified. For some inventions, the Concordance may not indicate any truly relevant group. Accordingly, the Concordance must be recognized as a *guide* to be used in conjunction with the Int. Cl.², and *not* as a translation list.

The third Edition of the Concordance incorporates some 20,000 changes over the previous edition and includes all changes in the Int. Cl.² and all changes in the U.S. Classification through Classification Order 413, dated December 31, 1973.

The Concordance may be incomplete in some areas and contain errors in other areas. Therefore, if corrections need to be made in the Concordance, members of the Examining Corps are requested to report any suggested changes to the appropriate group post classifier.

THE CATCHWORD INDEX

A revised Catchword Index, dated May 1974, has been prepared to correspond with the Int. Cl.².

ISSUE CLASSIFICATION SLIP

The blue Issue Classification Slip (form PO-270) has been revised (Rev. 7/74) to indicate classification according to Int. Cl.² and also to permit a maximum of four discrete international notations.

An example of the revised blue Issue Slip (PO-270) is reproduced below with the following exemplary Int. Cl.² notations: A01B 1/02; B07B 7/083; C08F 110/04; and C08F 267/00.

		CROSS REFERENCE					
		CLASS		SUBCLASS			
PATENT NUMBER							
SERIAL NUMBER							
NAME							
CLASS							
SUBCLASS							
		INTERNATIONAL CLASSIFICATION (INT. CL. ²)					
GROUP ART UNIT	PLEASE PRINT FULL NAME	A	O	1	B	1	02
	ASSISTANT EXAMINER	B	O	7	B	7	083
	PRIMARY EXAMINER	C	O	8	F	110	04
		C	O	8	F	267	00

FORM PO-270 (REV. 7/74) U.S. DEPARTMENT OF COMMERCE PATENT OFFICE

ISSUE CLASSIFICATION SLIP

NOTE: The alpha characters appearing in the Int. Cl.² notations must all be in capital letters. The practice of using a lowercase letter for the second occurring alpha character, as used in the first Edition, has been discontinued.

SUMMARY

1. The appropriate symbols of Int. Cl.² will be placed on all issuing applications and Defensive Publication documents.
2. Each person involved in placing Int. Cl.² on issuing applications should be familiar with pages 7 through 35 in the front of Volume 1 of the Int. Cl.² Manual.
3. As indicated above, the Int. Cl.² symbols of the issuing application should be placed on the blue Issue Classification Slip (form PO-270, Rev. 7/74) in the space headed "Int. Cl.²".
4. It is required that at least one Int. Cl.² symbol, and not more than four (4) be placed on each issuing application. It is required that the complete symbol be designated (e.g., A01B 1/02).

903.10 Duties of the Post Classifier [R-32]

Post classifiers were established to improve liaison between the classification groups and the examining groups. Examiners should contact their post classifier on all classification problems.

Each post classifier is assigned one examining group as his responsibility. He is charged with all classification duties relative to this one examining group, except for major reclassification projects.

A post classifier is responsible for:

- (1) The technical accuracy, adequacy and completeness of all search systems in his group including the monitoring of any need for major and minor reclassification projects including mechanized systems.
 - (2) The full range of classification administration functions including the resolution of classification disputes on pending applications, guidance on classification matters to both examiners and the public, which includes outlining fields of search and answering examiner's requests for advice as to the proper classification of allowed applications.
 - (3) The inspection of issuing applications to determine the accuracy and adequacy of original and cross-reference classification by working closely with the supervisory primary examiners and group directors to insure feedback to correct problem areas.
 - (4) Determination of the training needs of the personnel in his assigned group relative to principles of classification and supplying this training through formal and informal channels.
- Generally, the post classifiers are to aid the examiners in the use, maintenance, and perfection of the classification system.

904 How to Search [R-36]

The examiner, after having obtained a thorough understanding of the invention disclosed and claimed in the application, then searches the prior art as disclosed in patents and other printed documents. Any such document used in the rejection of a claim is called a "reference."

In all continuing applications, the parent applications should be reviewed by the examiner for pertinent prior art.

The first search should be such that the examiner need not ordinarily make a second search of the prior art, unless necessitated by amendments to the claims by the applicant in the first response, except to check to determine whether any reference which would appear to be substantially more pertinent than the prior art cited in the first Office action has become available subsequent to the initial prior art search. It should cover the invention as described and claimed, including the inventive concepts toward which the claims appear to be directed. It should not be extended merely to add immaterial variants.

904.01 Analysis of Claims [R-36]

The breadth of the claims in the application should always be carefully noted; that is, the examiner should be fully aware of what the claims do *not* call for, as well as what they do require. There is always danger of reading into the claim limitations imported from the specification or drawing.

904.01(a) Variant Embodiments Within Scope of Claim [R-36]

Substantially every claim includes within its breadth or scope of definition one or more variant embodiments not disclosed by applicant, which would anticipate the terms of the definition. The claim must be so analyzed and understood that any such variant encountered during the search will be recognized and selected.

In each type of subject matter capable of such treatment (e.g., a machine or other apparatus), the subject matter as defined by the claim may be sketched in order to clearly delineate the limitations of the claim. Two or more sketches, each of which is as divergent from the particular disclosure as is permitted by claim recitation, will assist the examiner in determining the claim's actual breadth or scope. However, an applicant will not be required to submit such sketches of claim structure (In re Application filed November 16, 1945, 1951 C.D. 1; 646 O.G. 5).

904.01(b) Equivalentents [R-24]

All subject matter that is the patentable equivalent of the subject matter as defined in the claim, even though specifically different from the definition in the claim, must be considered.

904.01(c) Analogous Arts [R-24]

Not only must the art be searched with which the invention claimed is classifiable, but also all analogous arts regardless of where classified.

The determination of when arts are analogous is at times difficult. It depends upon the necessary essential function or utility of the subject matter covered by the claims, and not upon what it is called.

For example, a tea mixer and a concrete mixer are for the same art, namely, the mixing art, this being the necessary function of each. Similarly a brick cutting machine and a biscuit cutting machine have the same necessary function.

904.01(d) Outlining Field of Search [R-36]

In outlining a field of search the examiner should note every class and subclass that may have material pertinent to the subject matter as claimed. Every subclass and digest pertinent to each type of invention claimed should be listed, from the largest combination through the various subcombinations to the most elementary part. The search should extend to all probable areas relevant to the claimed subject matter and should cover the disclosed features which might reasonably be expected to be claimed.

The following should be kept in mind: (a) that a combination reference is necessary to reject a claim drawn to an old or exhausted combination, (b) that a combination reference is valuable as a basic reference where elements thereof may be varied by substituting equivalent elements of a secondary reference, (c) that a convincing aid to a rejection on the ground of old combination is the citation of references showing the subcombinations to have been already recognized as having practical and more general utility, (d) that combination claims can be shown unpatentable by combining separately classified subcombinational elements where reasons can be given for holding obviousness in forming the combination, and (e) that in the rejection of a claim on the ground of aggregation, the citation of references showing the individual utility of the elements may better prove that the aggregative structure is no more than the sum of the features shown by the several elemental patents.

An examiner, in each first action upon an application, makes an initialed endorsement in ink in the space provided on the left-hand page of the open file wrapper, stating the classes and subclasses of domestic and foreign patents, abstract collections and the publications in which search for references was made and also the date of the search.

In subsequent actions, if further search is made, notation of the additional field covered is also endorsed and initialed on the file wrapper.

904.02 Conducting the Search [R-36]

It is a prerequisite to a speedy and just determination of the issues involved in the examination of an application that a careful and comprehensive search, commensurate with the limitations appearing in the most detailed claims in the case, be made in preparing the first action on the merits so that the second action on the merits can be made final or the application allowed with no further searching other than to update the original search. It is normally not enough that references be selected to meet only the terms of the claims alone, especially if only broad claims are presented; but the search should, insofar as possible, also cover all subject matter which the examiner reasonably anticipates might be incorporated into applicant's amendment. A complete search should result if applicant included, at the time of filing, claims varying from the broadest to which he believes he is entitled to the most detailed that he would be willing to accept.

It thus results that the examiner finds references that, while not needed for treating the claims before him, would be useful for forestalling the possible presentation of claims to other subject matter regarded by applicant as his invention, and claimable with the subject matter being currently claimed, but shown to be old by these references.

In selecting the references to be cited the examiner should carefully compare the references with one another and with the applicant's *disclosure* to avoid the citation of an unnecessary number. The examiner is not called upon to cite *all* the references that may be available, but only the "best." (rule 106.) Multiplying references, any one of which is as good as, but no better than, the others, adds to the burden and cost of prosecution, and should therefore be avoided. However, if doubt exists as to the inclusion of a reference, it is better to err in citing too much art rather than too little.

The best reference should always be the one used. Sometimes the best reference will have a publication date less than a year prior to the application filing date, hence it will be open to being overcome under rule 131. In these cases, if a second reference exists which cannot be so overcome and which, though inferior, is an adequate basis for rejection, the claims should be *additionally* rejected thereon.

In all references considered, including non-patent, foreign patents and domestic patents, the examiner should study the specification or description sufficiently to determine the full value of the reference disclosure relative to the claimed or claimable subject matter.

905 Miscellaneous

905.01 Photocopy Orders [R-24]

Patents and/or applications received from Germany since October 1, 1968 and from Japan, France and U.S.S.R. since July 1, 1969 are not in numerical sequence. Inasmuch as the Patent Office supplies orders for copies of these foreign documents from master microfilm reels made up on weekly or other periodic publishing sequences, all orders must include the country, patent or application number, and the publication date (if known) of the ordered document. Reference should be made to § 901.05(a) to assist in determining the publication date of the commonly encountered foreign patents and applications.

All orders for photocopies on PO-250 originating in the Examining Groups must be authorized by an Examiner having full or partial signatory authority in the box headed "PRIMARY EXAMINER (Signature)". The stamped name of the authorizing Examiner will be indication of authority for Reproduction Section. Handwritten signatures should not be used.

905.02 Soft Copy Orders [R-36]

Soft copies may be ordered on PO-14 by the examiner for his use. These orders are filled by employees of Patent Copy Sales Branch. No employees other than those assigned to this Branch have access to the files of printed copies of patents. In emergency cases, orders may be taken to the Chief of the Branch whose approval thereof, if given, will insure immediate filling of said orders.

Because of the cost of printing copies of patents, economy should be exercised in their use. No soft copies should, however, be returned to Customer Services Division by examiners.

In view of the high cost of printing patents with color drawings, orders by examiners for plant patents and other patents with color drawings will not normally be filled by the Patent Copy Sales Branch. Soft copies of patents with colored drawings may be obtained only for cross-referencing purposes with the group director's approval. The group director indicates his approval by stamping and initialing form PO-14 below the "Examiner's Name".

UPDATING OF PATENT LISTINGS

All patent copies in Official subclasses and Digests have been recorded as of the summer of 1969. In order that each search file be complete as to patent copies, it is necessary that each patent copy subsequently added to the search file be recorded.

The informal placement of cross references as "Unofficial Patents" into the examiner's search files has been discontinued. All patent copies now placed in the examiner's search file are "hard-copy" official cross references. Requests for patent copies on soft copy order form PO-14 having classification information noted thereon will be utilized by the Office of Patent Classification to generate and classify hard copy patent documents. The Office of Patent Classification provides copies to the Public Search Room and the examiner's search files in accordance with the form PO-14 request.

If a soft copy is desired without a copy being placed into the search files, no indication of classification should be included. A single soft copy is enclosed with all orders made on form PO-14. All soft copies are stamped in red "DO NOT PLACE IN SEARCH FILE." If for any reason the requesting examiner desires more than one soft copy for purposes other than the search file, the number of copies desired should be placed in the box on form PO-14 marked "NO. OF COPIES".

1. Procedure to add cross references only. (Sample "A").

Place the number "1" (one) in the box marked "NO. OF COPIES". Fill in clearly the "CLASS" and "SUB CLASS/DIGEST" boxes. Also complete the "PATENT NUMBER", "GROUP", "DATE OF ORDER" and "EXAMINER'S NAME" boxes.

2. Procedure to order soft copies only. (Sample "B").

This procedure is to be used when no copies are to be placed in the search files. Mark the number of soft copies desired in the box marked "NO. OF COPIES" and also complete the "PATENT NUMBER", "GROUP", "DATE OF ORDER", and "EXAMINER'S NAME" boxes.

3. Procedure to add cross references to search file and also receive multiple soft copies. (Sample "C").

In the "NO. OF COPIES" box place only the numeral indicating the number of soft copy patents desired exclusive of those patents for which a classification is listed. Also complete the "PATENT NUMBER", "GROUP",

SAMPLE "A" is an order for 3 hard copies and 1 soft copy.

USE A SEPARATE COUPON FOR EACH PATENT NUMBER ORDERED	PATENT NUMBER 1, 234, 567	NO. OF COPIES 1	
GROUP 242	DATE OF ORDER 10-15-74	CLASS 15	SUB CLASS/DIGEST 23
		15	24
EXAMINER'S NAME ERIC ROBERTS		259	10
NOTES		<input type="checkbox"/> DO NOT RECORD CLASSIFICATION	
FORM PO-14 REV. 1/71 EXAMINER'S ORDER FOR PATENT COPY U.S. DEPARTMENT OF COMMERCE PATENT OFFICE			

SAMPLE "B" is an order for 3 soft copies.

USE A SEPARATE COUPON FOR EACH PATENT NUMBER ORDERED	PATENT NUMBER 2, 345, 678	NO. OF COPIES 3	
GROUP 352	DATE OF ORDER 10-15-74	CLASS	
		SUB CLASS/DIGEST	
EXAMINER'S NAME HENRY GREEN		<input type="checkbox"/> DO NOT RECORD CLASSIFICATION	
NOTES			
FORM PO-14 REV. 1/71 EXAMINER'S ORDER FOR PATENT COPY U.S. DEPARTMENT OF COMMERCE PATENT OFFICE			

SAMPLE "C" is an order for 2 hard copies and 3 soft copies.

USE A SEPARATE COUPON FOR EACH PATENT NUMBER ORDERED	PATENT NUMBER 3, 456, 789	NO. OF COPIES 3	
GROUP 166	DATE OF ORDER 10-15-74	CLASS 96	SUB CLASS/DIGEST 6
		96	7
EXAMINER'S NAME ELLEN GRAY		<input type="checkbox"/> DO NOT RECORD CLASSIFICATION	
NOTES			
FORM PO-14 REV. 1/71 EXAMINER'S ORDER FOR PATENT COPY U.S. DEPARTMENT OF COMMERCE PATENT OFFICE			

"DATE OF ORDER", "CLASS" and "SUB-CLASS/DIGEST" for the desired hard copies, and the "EXAMINER'S NAME" boxes.

For the procedure to be used for ordering soft copies to replace missing hard copies see § 901.09.

To expedite the handling of soft-copy orders requested by Patent Office personnel, and thereby insure the quickest response, the following routing procedures should be adhered to:

(1) Use designated collection drops within each group.

(2) Group clerical personnel should hand carry or mail the forms, at least daily, to the Office of Patent Classification (OPC), room 2-7D12 or drop them in the OPC soft-copy order box provided at the reference order window in room 2-1A03. This box is emptied at least three times daily.

(3) The OPC will date stamp and batch the forms for subsequent keypunch processing by Customer Services Division (i.e., A, B, and C bundles for none, one or multiple classifications). This procedure is essential in order to update the record of classification which is maintained on magnetic tape.

The attorneys' drop slot at the Customer Services Division window should not be used nor should the forms be mailed to Customer Services Division as consequent rerouting to OPC for processing will result in unnecessary delay. [R-42]

905.03 Orders for Patented and Abandoned Files [R-22]

In the examination of an application it is sometimes necessary to inspect the application papers of some previously abandoned application or granted patent. This is always true in the case of a reissue application.

Patented and abandoned files may be obtained in the Record Room and Abandoned File Unit respectively, by filing out Charge Form (PO-125), and leaving this form with the clerk in charge. The file should be promptly returned when the examiner has finished with it. Where a patented file is needed for the purpose of reissue or interference, this information should be given to the Record Room upon obtaining the file, and as soon as these matters have been disposed of, the file should be returned to the Record Room.

When an interference is declared between a patent and an application and the interference is forwarded to the Board of Patent Interferences, the clerk in charge of the Record Room should be informed in order that the charge

may be changed and the location of the file known at all times.

Examiners may expedite service in obtaining abandoned files and patented files by ordering them by telephone.

When ordering a patented file from the Record Room, the name of the person ordering the file should appear on the Form PO-125. It is important that the Patent Number be stated rather than the Serial Number of the application which matured into the patent. An examiner ordering a patented file should also place his art unit number on the form. If the notation "HOLD" is marked on the Form PO-125 the case will be held at the Record Room and in the absence of such notation it will be sent to the art unit indicated. If ordered by phone, the examiner may appear at the Record Room to complete the Form PO-125 and to pick up the file or he may request the delivery of the file by regular Office Messenger Service. If the need for the file is not urgent, examiner time may be saved by sending a Form PO-125, completed in the manner indicated above, to the Record Room by regular Office Messenger Service. The file will be delivered by the same Messenger Service to the art unit indicated on the form or it will be held at the Record Room only if so requested on the form.

Customer Services Division has charge of the drawings in patented cases. Canceled sheets, however, are not retained with the patented drawings but are filed with the "Abandoned Files and Drawings."

905.04 Marking Examiners' Copies of Patents

When the examiners' copies of patents are sent to their respective art units to be filed, they should be routed across the appropriate examiners' desks prior to placement in the shoes. The assistant examiners who examined the application should mark in ink on the face of the drawings, or the specifications where there are no drawings, such features as may be deemed advantageous in aiding understanding of the patents in future searches.

905.05 Charge for Pending Application Files [R-22]

Whenever an application file is temporarily removed from the group or division having jurisdiction thereof Charge Form PO-125 must be completed, and left with the clerk in charge. Such pending applications should also be "palmed in" by the group or division borrow-

ing the pending application so that accurate records may be maintained as to the location of such applications.

Whenever a file is removed from the group application file rack for use by an examiner

assigned to that group, but not having jurisdiction of that file, cardboard Form OF-25 should be inserted in place of the borrowed file.

All files should be returned promptly to their proper location.