INTERNATIONAL PATENT CLASSIFICATION
Sixth Edition (1995)

GUIDE

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I. FOREWORD

1. The Strasbourg Agreement concerning the International Patent Classification (of 1971), which entered into force on October 7, 1975, provides for a common classification for patents for invention including published patent applications, inventors' certificates, utility models and utility certificates (hereinafter referred to as "patent documents"). The International Patent Classification is hereinafter referred to as "the Classification".

2. The Classification, being a means for obtaining an internationally uniform classification of patent documents, has as its primary purpose the establishment of an effective search tool for the retrieval of patent documents by patent offices and other users, in order to establish the novelty and evaluate the inventive step (including the assessment of technical advance and useful results or utility) of patent applications.

3. The Classification, furthermore, has the important purposes of serving as:
   (a) an instrument for the orderly arrangement of patent documents in order to facilitate access to the technological and legal information contained therein;
   (b) a basis for selective dissemination of information to all users of patent information;
   (c) a basis for investigating the state of the art in given fields of technology;
   (d) a basis for the preparation of industrial property statistics which in turn permit the assessment of technological development in various areas.

4. The text of the first edition of the Classification was established pursuant to the provisions of the European Convention on the International Classification of Patents for Invention of 1954.

5. The Classification is periodically revised in order to improve the system and to take account of technical development.

6. The first edition of the Classification was in force from September 1, 1968, to June 30, 1974, the second from July 1, 1974, to December 31, 1979, the third from January 1, 1980, to December 31, 1984, the fourth from January 1, 1985, to December 31, 1989, and the fifth from January 1, 1990, to December 31, 1994. This edition (the sixth) entered into force on January 1, 1995.

7. In accordance with Article 4(5) of the above-mentioned Agreement, it has been determined that the abbreviation "Int.Cl." of the words "International Patent Classification" may precede the classification symbols instead of those words in published patent documents classified according to the Classification.

8. It is recommended that published patent documents classified in accordance with a given edition of the Classification bear an indication of that edition in the form of a superscript Arabic numeral, printed immediately after the abbreviation. Thus, for a document classified in accordance with the fifth edition, the recommended abbreviation is: Int.Cl.5; in accordance with the fourth edition: Int.Cl.4, etc. However, when it is in accordance with the first edition, no superscript Arabic numeral is shown, the indication being merely Int.Cl.

9. The Classification is established in the English and French languages, both texts being equally authentic.

10. Pursuant to Article 3(2) of the above-mentioned Strasbourg Agreement, official texts of the Classification may be established in other languages. Complete texts of the fifth edition of the Classification were established in, for example, the Chinese, Czech, German, Hungarian, Japanese, Korean, Polish, Portuguese, Romanian, Russian and Spanish languages.

11. The Guide attempts to describe in simple terms and by means of examples how the Classification should be used for the purpose of classifying or retrieving patent documents. Further assistance in the use of the Classification is provided by the Catchword Index, which has been established in English and French as well as in other languages. An Introductory Manual to the Classification has been elaborated in order to assist classifiers and searchers in the use of the Classification, and can be obtained from WIPO. Furthermore, WIPO publishes a special publication (named "Revision

Concordance List") which gives information on how subject matter has been transferred between different places in the Classification as a result of its revision; a first list (published in 1980) relates to the revision of the second edition, a second list (published in 1984) relates to the revision of the third edition, a third list (published in 1989) relates to the revision of the fourth edition and, finally, a fourth list (published in 1994) relates to the revision of the fifth edition. These publications may serve as an aid to the users using the second, third, fourth, fifth and sixth editions of the Classification.

12. Assistance in the use of the Classification, and information on the transfer of subject matter as a result of the revision work, is also available through the IPC:CLASS CD-ROM (which exists both in an MS-DOS R version and in a Windows R version), which has been produced by the International Bureau of WIPO in close cooperation with the German Patent Office, the Hungarian National Office of Inventions and the Spanish Patent and Trademark Office. The IPC:CLASS CD-ROM relating to the sixth edition of the Classification, which can be obtained from WIPO, contains:

- the first, second, third, fourth, fifth and sixth editions of the Classification in English and French;
- the fourth, fifth and sixth editions of the Classification in German;
- the fifth and sixth editions of the Classification in Hungarian and Spanish;
- the Catchword Indexes to the sixth edition of the Classification in English, French and Spanish;
- the bilingual (German/English) "Stich- und Schlagwörterverzeichnis" (with the two versions separated);
- the revision concordance data relating to the second/third, third/fourth, fourth/fifth and fifth/sixth editions of the Classification;
- the data relating to all symbols having been used in the Classification.

13. Communications relating to the Classification should be addressed to:

World Intellectual Property Organization
34, chemin des Colombettes
1211 Geneva 20 (Switzerland)

II. LAYOUT AND USE OF CLASSIFICATION SYMBOLS; HIERARCHICAL STRUCTURE; TERMINOLOGY; SCOPE OF PLACES

14. The layout, use of classification symbols, hierarchical structure and other aspects of the Classification are explained below with reference to the sample pages appearing on pages 7 and 8 of this Guide [these sample pages are not reproduced in IPC:CLASS]. The layout and use of indexing codes relating to hybrid systems, where different from what is said below for classification symbols, are described in Chapter IV.

SECTION

15. The Classification represents the whole body of knowledge which may be regarded as proper to the field of patents for invention, divided into eight sections.

(a) **Section Symbol** - Each section is designated by one of the capital letters A through H.

(b) **Section Title** - The section title is to be considered as a very broad indication of the contents of the section. The eight sections are entitled as follows:

A HUMAN NECESSITIES
B PERFORMING OPERATIONS; TRANSPORTING
C CHEMISTRY; METALLURGY
D TEXTILES; PAPER
E FIXED CONSTRUCTIONS
F MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
G PHYSICS
H ELECTRICITY.

(c) **Contents of Section** - Each section title is followed by a summary of the titles of its main subdivisions.

(d) **Subsection** - Within sections, informative headings form subsections, which are titles without classification symbols.
Example: AGRICULTURE.

CLASS

16. Each section is subdivided into classes.
(a) **Class Symbol** - Each class symbol consists of the section symbol followed by a two-digit number.
Example: A 01.
(b) **Class Title** - The class title gives an indication of the content of the class.
Example:

A 01	AGRICULTURE; FORESTRY; ANIMAL HUSBANDRY; HUNTING; TRAPPING; FISHING.

(c) **Class Index** - Some classes have an index which is merely an informative summary giving a broad survey of the content of the class.

SUBCLASS

17. Each class comprises one or more subclasses.
(a) **Subclass Symbol** - Each subclass symbol consists of the class symbol followed by a capital letter.
Example: A 01 B.
(b) **Subclass Title** - The subclass title indicates as precisely as possible the content of the subclass.
Example:

A 01 B	SOIL WORKING IN AGRICULTURE OR FORESTRY; PARTS, DETAILS, OR ACCESSORIES OF AGRICULTURAL MACHINES OR IMPLEMENTS, IN GENERAL.

(c) **Subclass Index** - Some subclasses have an index which is merely an informative summary giving a broad survey of the content of the subclass.

GROUP

18. Each subclass is broken down into subdivisions referred to as “groups”, which are either main groups or subgroups.
(a) **Group Symbol** - Each group symbol consists of the subclass symbol followed by two numbers separated by an oblique stroke.
(b) **Main Group Symbol** - Each main group symbol consists of the subclass symbol followed by a one- to three-digit number, the oblique stroke and the number 00.
Example: A 01 B 1/ 00.
(c) **Main Group Title** - The main group title defines a field of subject matter considered to be useful for search purposes. Main group symbols and titles are printed in bold in the Classification.
Example: A 01 B 1/ 00 Hand tools.
(d) **Subgroup Symbol** - Subgroups form subdivisions under the main groups. Each subgroup symbol consists of the subclass symbol followed by the one- to three-digit number of its main group, the oblique stroke and a number of at least two digits other than 00.
Example: A 01 B 1/ 02.
Any third or subsequent digit after the oblique stroke is to be understood as a decimal subdivision of the digit preceding it, e.g., 3/426 is to be found after 3/42 and before 3/43, and 5/1185 is to be found after 5/118 and before 5/119.
(e) Subgroup Title - The subgroup title defines a field of subject matter within the scope of its main group considered to be useful for search purposes. The title is preceded by one or more dots indicating the hierarchical position of that subgroup, i.e., indicating that each subgroup forms a subdivision of the nearest group above it having one dot less (see paragraphs 22 to 24, below). The subgroup title is often a complete expression, in which case it begins with a capital letter. A subgroup title begins with a lower case letter if it reads as a continuation of the title of the next

higher, less indented group, i.e., having one dot less. **In all cases, the subgroup title must be read as being dependent upon, and restricted by, the title of the group under which it is indented**.

Examples:

A 01 B 1 / 00 Hand tools
1 / 24 • for treating meadows or lawns.

The title of 1/24 is to be read as: Hand tools for treating meadows or lawns.

A 01 B 1 / 00 Hand tools
1 / 16 • Tools for uprooting weeds.

The title of 1/16 is a complete expression, but owing to its hierarchical position, the tools for uprooting weeds are restricted to hand tools.

COMPLETE CLASSIFICATION SYMBOL

19. A complete classification symbol comprises the combined symbols representing the section, class, subclass and main group or subgroup.

Example:

A Section	01	B	1/00 or	Main group
	Class		1/24	Subgroup
		Subclass		
			Group	

GUIDE HEADINGS

20. The main groups in each subclass are arranged, as far as possible, in a sequence intended to assist the user. It has not, however, been found practicable to standardize the sequence. Where a plurality of successive main groups relate to common subject matter, it is usual to provide before the first of such main groups a “guide heading” which is underlined, indicating this subject matter (see, for example, the guide heading “Ploughs” before group A 01 B 3/00). The series of groups covered by such a heading extends to the next guide heading or to a line in heavy type extending across the column, which is used when the following group or groups relate to different subject matter for which no guide heading is provided (see, for example, the line after group A 01 B 75/00). This line replaces the broken line used in the first two editions of the Classification. In exceptional cases, a guide heading may be provided for a single main group. For the effect of a guide heading on the scope of a place, see paragraphs 44(c) and 45, below.

HIERARCHICAL STRUCTURE OF THE CLASSIFICATION

21. The hierarchy of the Classification is given by a differentiation of the whole body of knowledge into several levels, i.e., section, class, subclass, group and subgroup, in descending order of hierarchy.

22. **The hierarchy among subgroups is determined solely by the number of dots preceding their titles, and not by the numbering of the subgroups.**

Example:

C 08 C 1 / 06 • • Preservation of rubber latex (preserving ingredients C 08 K)
1 / 065 • • Increasing the size of dispersed rubber particles
1 / 07 • • • characterised by the agglomerating agents used
1 / 075 • • Concentrating
1 / 08 • • • with the aid of creaming agents.

This example shows that three-digit, two-dot subgroups 1/065, 1/075 are hierarchically superior to the two-digit, three-dot subgroups 1/07, 1/08, respectively.

23. The dots are also used in place of, and to avoid repetition of, the titles of hierarchically directly superior (less indented) groups.

Example:

A 63 H	3 / 00	Dolls
	3 / 36	• Details, Accessories
	3 / 38	• • Dolls' eyes
	3 / 40	• • • movable.

Without the use of hierarchical levels, subgroup A 63 H 3/40 would have to have a title such as: "Movable dolls' eyes as details of dolls".

24. The hierarchical classification using a six-dot subgroup is shown in the example B 64 C 25/30:

Section:

B		PERFORMING OPERATIONS; TRANSPORTING

Class:

B 64		AIRCRAFT; AVIATION; COSMONAUTICS

Subclass:

B 64 C		AEROPLANES; HELICOPTERS

Main group:

B 64 C	25 / 00	Alighting gear

One-dot subgroup:

	25 / 02	• Undercarriages

Two-dot subgroup:

	25 / 08	• • non-fixed, e.g., jettisonable

Three-dot subgroup:

	25 / 10	• • • retractable, foldable, or the like

Four-dot subgroup:

	25 / 18	• • • • Operating mechanisms

Five-dot subgroup:

	25 / 26	• • • • • Control or locking systems therefor

Six-dot subgroup:

	25 / 30	• • • • • • emergency actuated.

Group B 64 C 25/30 actually concerns "emergency actuated control or locking systems for the operating mechanisms for retractable, foldable or the like non-fixed undercarriages used in alighting gear for aeroplanes or helicopters".

MULTI-PART TITLES

25. **Some titles may comprise two or more distinct parts separated by semicolons. Each part of these titles is to be interpreted as if it stood alone.** This usually occurs when it is considered desirable to treat together distinct kinds of subject matter which cannot conveniently be covered by a single phrase.

Example:

A 01 B	3 / 10	• • • Trussed-beam ploughs; Single-wheel ploughs.

REFERENCES

26. In many cases, a class, subclass or group title, a guide heading or a note (see paragraph 29, below) contains a phrase in brackets referring to another place in the Classification. Such a phrase, called a reference, shows that the subject matter indicated by the reference is covered by the place (or places) referred to.

Example:

A 01 B	1 / 00	Hand tools (edge trimmers for lawns A 01 G 3/06).

<u>Functions of References</u>

27. A reference has one of the following functions:

(a) **Limitation of scope** - This type of reference specifies the subject matter which is taken to another place, notwithstanding that it is covered by the title of the place where the reference appears, and is very important for the proper understanding and use of the place where it appears. The title describes a certain field of subject matter, but the subject mater actually dealt with in that place is only the part of the field remaining after subtraction of all the subject matter specified in the references (see, for example, group A 01 B 1/00).

(b) **Indication of precedence** - A reference stating that another place "takes precedence" is used where it occurs that subject matter is classifiable in two places, or when different aspects of the subject matter to classify are covered by different places, and it is desired that such subject matter should be classified in only one of those places (see, for example, group A 01 K 31/07). Such a precedence reference occurs most frequently at subgroup level; in some cases, where several groups are similarly affected, it may be replaced by a note at a higher level (see, for example, Note (2) following the title of subclass A 61 M).

(c) **Guidance** - In certain places, references indicate where to find related subject matter not covered by the title of the place where the reference appears (see, for example, group A 61 H 33/14).

Use and Interpretation of References

28. Some points of detail concerning the use and interpretation of references:

(a) A reference is usually placed at the end of the title to which it belongs. If the title consists of two or more parts, the reference is placed after the last part to which it relates. Exceptionally, a reference does not relate to all parts preceding it, but in such cases this is evident from the context.
Example:

B 02 B 3 / 00 Hulling; Husking; Decorticating (decorticating textile fibres D 01 B 1/14); Polishing; Removing the awns (in threshing machines A 01 F 12/42); Degerming.

(b) A reference following the title of a class, subclass or group relates to all the hierarchically inferior places.

(c) A reference in a guide heading or note relates to all the groups covered by the guide heading or note.

(d) A reference from one group to another in the same subclass quotes only the number of the latter group without mentioning the subclass.

(e) Where a group is quoted, it is usually the most relevant group but not necessarily the only relevant group. In particular, groups hierarchically related to a group quoted should also be borne in mind.

(f) Where two or more items of subject matter are referred to the same place, they are separated by a comma, the classification symbols of that place being given only at the end of that reference.
Example:

A 01 D 91 / 04 • Products growing above the soil (fruit, hops 46/00).

(g) References relating to different items of subject matter referred to different places are separated by a semicolon and are to be read independently.
Example:

A 01 K 1 / 00 Housing animals; Equipment therefor (building construction, features of buildings E 04; ventilating buildings F 24 F).

An exception is where a substantial part of their wording is the same; in this case, the common wording is given once and the different symbols are separated by a comma.
Example:

A 01 H 3 / 00 Processes for modifying phenotypes (4/00 takes precedence; influencing the growth of plants without producing new plants, non-chemically A 01 G 7/00, chemically A 01 N 25/00 to 65/00).

NOTES

29. In the Classification there are notes associated with a section, subsection, class, subclass, guide heading or group which, for a certain part of the Classification, define specific words, phrases or the scope of places, or which indicate how subject matter is classified.
Examples:

F 42	This class covers also means for practice or training which may have aspects of simulation, although simulators are generally covered by class G 09.
B 22 F	"Metallic powder" covers powders containing a substantial proportion of non-metallic material.
B 01 J 31 / 00	In this group, the presence of water is disregarded for classification purposes.

These notes apply only to the places concerned and override any general guidance in case of conflict.

Example:

Note (1) following the title of subclass C 08 F overrides the Note following the title of section C.

DELETED GROUPS

30. The symbols of groups that have been deleted, i.e., groups that existed in the fifth edition of the Classification but do not exist in the sixth edition, are printed with an indication of where the subject matter concerned is covered in the sixth edition. This indication, which appears after the symbols of those groups, is given as "(transferred to ...)" and/or "(covered by ...)", where the symbols of the Classification (printed in place of the dots) indicate the places covering the subject matter concerned.

TERMINOLOGY (see also the Glossary)

31. It has been possible to standardize only a limited number of wordings. In interpreting any title or wording, it is often useful to consider related subclasses or groups.

"Provided for", "Covered by", "Covered in"

32. The expression "provided for" means having characteristics enabling the subject matter in question to be classified in the place referred to (see, for example, group B 60 Q 11/00). The expressions "covered by" and "covered in" have the same meaning as "provided for" (see, for example, group A 41 F 18/00).

Expressions Used to Indicate Residual Subject Matter

33. The expression "not otherwise provided for", occurring in a group title, means "not provided for in any other group in the same subclass or in any other subclass" (see, for example, group B 65 D 51/00). This applies similarly where this expression appears in the title of a class or subclass.

34. The groups worded "Other...", "...not provided for in groups..." and "Miscellaneous" cover subject matter whose characteristics are not provided for in any other group of the subclass (see, for example, A 41 F 13/00, B 05 C 21/00, A 42 C 3/00, respectively).

35. In a number of subclasses, there are main groups designating subject matter "according to more than one of the preceding groups" or with similar wording. Such groups deal with:

(a) subject matter which comprises a large number of alternatives each of which taken individually would be covered by one of the preceding groups, e.g., C 08 F 291/00, or

(b) subject matter which consists of a combination of characteristics not covered as a whole by a single one of the preceding groups but each of which characteristics, taken individually, would be covered by one of the preceding groups, e.g., E 05 C 21/00.

"I.e.", "E.g."

36. The expression "i.e." has the sense of "equals" and the two phrases joined by "i.e." are to be considered equivalent, one of the phrases constituting a definition of the other.

Example:

A 01 B 3 / 06 • • without alternating possibility, i.e. incapable of making an adjacent furrow on return journey.

37. The expression "e.g." does not limit the sense of the phrase which precedes it, but simply explains it. This expression can have the following meanings:

(a) By way of example - giving typical illustrations of the preceding wording.

Example:

A 42 C 5 / 00 Fittings or trimmings for hats, e.g. hat-bands.

(b) Comprising - when it is required to draw attention to the fact that what is mentioned after "e.g." is definitely covered by the preceding wording although this might not have been readily apparent from the wording.

Example:

B 62 B 7 / 00 Carriages for childrens; Perambulators, e.g. dolls' perambulators.

(c) Particularly - where it is used to indicate matter which is covered but for which no further indented subgroup has been provided.

Example:

A 45 D 1 / 00 Curling-tongs, i.e. tongs for use when hot; Curling-irons, i.e. irons for use when hot; Accessories therefor

1 / 02 • with means for internal heating, e.g. by liquid fuel

1 / 04 • • by electricity (electric heating elements per se H 05 B).

"A and B", "A or B", "Either A or B, but not Both"

38. The expression:

- "A and B" implies the presence of A and B in the same example or embodiment;
- "A or B" implies the presence of A or the presence of B, or the presence of A and B in the same example or embodiment;
- "either A or B, but not both" implies the presence of A or the presence of B but not the presence of A and B in the same example or embodiment.

"In General", "Per se", "Specially Adapted for"

39. The expression "in general" indicates an item of subject matter considered for its characteristics disregarding any application, as defined in paragraph 53(a), below.

40. The expression "per se" concerns only an item of subject matter itself as opposed to a combination of which that item is a part. This expression, while not applied to technical subjects of the category referred to in paragraph 53(d), below, is therefore not confined to a particular one of the other categories mentioned in that paragraph.

Example:

In group G 01 T 3/08, which covers the measuring of neutron radiation with semiconductor detectors, the reference (semiconductor detectors per se H 01 L 31/00) means that subject matter concerned solely with semiconductor detectors is covered by group H 01 L 31/00 and is classified elsewhere when the subject matter concerns their combination with other elements of devices for measuring neutron radiation.

41. The expression "specially adapted for" means that the subject matter in question has been modified or particularly constructed for the given use or purpose, as defined in paragraph 53(b), below.

Examples:

A 47 D FURNITURE SPECIALLY ADAPTED FOR CHILDREN

A 47 H 13 / 16 • • • Pleat belts; Hooks specially adapted for pleat belts.

"Or the Like"

42. The expression "or the like" is sometimes used to emphasize that the classification place in question is not limited to the specific subject matter as specified by the wording but that it also covers similar subject matter with essentially the same characteristics.

Example:

B 63 B 35 / 52 • • Nets, slipways or the like, for recovering aircraft from the water.

SCOPE OF PLACES

43. The titles of sections, subsections and classes are only broadly indicative of their content and, as a rule, do not define with precision the subject matter falling under the general indication of the title. In general, the section or subsection titles very loosely indicate the broad nature of the scope of the subject matter to be found within the section or subsection, and the class title gives an overall indication of the subject matter covered by its subclasses. By contrast, it is the intention in the Classification that the titles of subclasses, taking into consideration any references or notes associated therewith, precisely define the scope of the subject matter covered thereby. The titles of main groups and subgroups, again subject to any references or notes associated therewith, define the subject matter covered thereby.

Subclasses

44. The effective scope of a subclass is defined by the following, taken together:

(a) The subclass title which describes, as precisely as is possible in a small number of words, the main characteristic of a portion of the whole body of knowledge covered by the Classification, this portion being the field of the subclass to which all its groups relate.

(b) Any references which follow the subclass title or its class title. These references often indicate certain parts of the field described by the title which are covered by other subclasses and are therefore excluded. These parts may constitute a substantial part of the field described by the title and, thus, the references are in some respects as important as the title itself. For example, in subclass A 47 D - FURNITURE SPECIALLY ADAPTED FOR CHILDREN - a considerable part, namely school benches or desks, of the subject matter covered by the title is excluded in view of a reference to particular groups of subclass A 47 B, thus considerably altering the scope of subclass A 47 D.

(c) Any references which appear in groups or guide headings of a subclass and which refer subject matter to another class or subclass may also affect the scope of the subclass in question. For example, in subclass B 43 K - IMPLEMENTS FOR WRITING OR DRAWING - writing points for indicating or recording apparatus are referred out of group 1/00 to group 15/16 of subclass G 01 D, thereby reducing the scope of the subject matter covered by the title of subclass B 43 K.

(d) Any notes or definitions appearing under the subclass title or its class, subsection or section title. Such notes or definitions may define terms or expressions used in the title, or elsewhere, or clarify the relation between the subclass and other places.

Examples:

(i) The Notes following the title of the subsection “ENGINES OR PUMPS”, embracing classes F 01 to F 04, which notes define the terms or expressions used throughout the subsection.

(ii) Note (1) following the title of subclass F 01 B, which defines its scope in relation to subclasses F 01 C to F 01 P.

(iii) The Note following the title of section C which defines groups of elements.

Main Groups

45. **The scope of a main group is to be interpreted only within the effective scope of its subclass** (as indicated above). Subject to this, the effective scope of a main group is determined by its title as modified by any relevant references or notes associated with the main group or with any guide heading covering it. For example, a group for “bearings” in a subclass whose title is limited to a particular apparatus must be read as covering only features of bearings peculiar to that apparatus, e.g., the arrangement of bearings in the apparatus.

Attention is drawn to the fact that guide headings are intended to be only informative and, as a rule, do not modify the scope of the groups covered by them, except where it is otherwise clear from the context. By contrast, references in the guide headings modify the scope of the associated groups.

Subgroups

46. **The scope of a subgroup is likewise to be interpreted only within the effective scope of its main group and of any subgroup under which it is indented.** Subject to this, the scope of a subgroup is determined by its title as modified by any relevant references or notes associated therewith.

Example:

B 64 C		AEROPLANES; HELICOPTERS (air-cushion vehicles B 60 V)
	5 / 00	Stabilising surfaces (attaching stabilising surfaces to fuselage 1/26)
	5 / 06	• Fins (specially for wings 5/08)
	5 / 08	• mounted on, or supported by, wings
	5 / 10	• adjustable
	5 / 12	• • for retraction against or within fuselage or nacelle.

(a) Main group 5/00 must be read within the scope of the subclass title, i.e., as “stabilising surfaces of aeroplanes or helicopters”. Moreover, the reference following the title of subclass B 64 C - air-cushion vehicles B 60 V - indicates that all subject matter concerning air-cushion

vehicles is classified in subclass B 60 V, so that, in relation to main group 5/00 and all its subgroups, stabilising surfaces of air-cushion vehicles are classified in subclass B 60 V. Furthermore, the reference in main group 5/00 - attaching stabilising surfaces to fuselage 1/26 - indicates that all subject matter concerned with attaching stabilising surfaces to fuselages is classified in subgroup 1/26.

(b) Subgroup 5/06, which is indented under main group 5/00, must be read as "stabilising surfaces in the form of fins". Moreover, the reference following the title of subgroup 5/06 - specially for wings 5/08 - indicates that fins designed specially for wings are classified in subgroup 5/08.

(c) Similarly, subgroup 5/08, which is of the same one-dot indentation under main group 5/00 as subgroup 5/06, must be read as "stabilising surfaces mounted on, or supported by, wings", and subgroup 5/10 as "adjustable stabilising surfaces".

(d) Subgroup 5/12 is indented under subgroup 5/10 and must be read within the scope thereof, i.e., as "adjustable stabilising surfaces for retraction against or within fuselage or nacelle."

47. When a group is subdivided, each subgroup covers only a particular part of the field covered by the group under which it is indented; thus, a group may have only one subgroup indented thereunder or there may be many. Subgroups do not necessarily contain the major part of the field of the group under which they are indented; each subgroup is primarily devised to take out of that field a well-defined portion of subject matter to which search can often be restricted. Thus, any group may cover subject matter wich falls within its scope but

(a) is not specified in any subgroup indented thereunder, or

(b) is too broad in scope to be classified in a single subgroup indented thereunder.

48. The scope of any subgroup in comparison with its hierarchically higher group is determined by the presence of one or more essential characteristics, shown in the title of the subgroup. Two cases may arise:

(a) The essential characteristics are not expressed in the title of the hierarchically higher group.

Example:

A 01 B	1 / 02	•	Spades; Shovels
	1 / 04	• •	with teeth.

(b) The essential characteristics are already expressed in the title of the hierarchically higher group.

Example:

A 45 C	5 / 04	•	Trunks; Travelling baskets
	5 / 10	• •	Travelling baskets.

Subject matter is only covered by the subgroup when the subject matter has the aforesaid characteristic(s) as an essential part.

III. PRINCIPLES OF THE CLASSIFICATION; CLASSIFYING RULES

49. The primary purpose of the Classification, as noted in paragraph 2, above, is to facilitate the retrieval of technical subject matter. It is therefore devised, and has to be used, in such a way that one and the same technical subject is classified in, and thus can be retrieved from, one and the same place within the Classification; this place being the one most likely to be searched for that subject. Attention is drawn to the fact that wherever in the Guide reference is made to inventions or technical subjects of inventions, in the context of categorizing or classifying them, it is to be understood that the remarks made apply equally to technical subjects not forming part of inventions as such but which are covered by "additional information", as defined in paragraph 83(b), below.

TECHNICAL SUBJECTS OF INVENTIONS

50. Technical subjects of inventions may represent processes, products or apparatus (or the way these are used or applied), and these terms should be interpreted in their widest sense, as indicated in the following examples:

(a) Examples of processes are: polymerisation, fermentation, separation, shaping, conveying, treating of textiles, transfer and transformation of energy, building, preparation of foodstuffs,

testing, methods of operating machines and ways in which they work, processing and transmitting of information.

(b) Examples of products are: chemical compounds, compositions, fabrics, articles of manufacture.

(c) Examples of apparatus are: installations used in chemical or physical processes, tools, implements, machines, devices for performing operations.

51. It should be noted that an apparatus can be regarded as a product, since it is produced by a process. The term “product”, however, is used to denote the result of a process regardless of the subsequent function of the product, e.g., the end-product of a chemical or manufacturing process, whereas the term “apparatus” is associated with an intended use or purpose, e.g., apparatus for generating gases, apparatus for cutting.

PLACES IN THE CLASSIFICATION FOR TECHNICAL SUBJECTS OF INVENTIONS

52. The Classification attempts to ensure that any technical subject with which an invention is essentially concerned can be classified, as far as possible, as a whole and not by separate classification of constituent parts.

53. The technical subjects of inventions dealt with in patent documents concern either the intrinsic nature or function of a thing or the way a thing is used or applied. The term “thing” is used in this context to mean any technical matter, tangible or not, e.g., process, product or apparatus. The above is reflected in the design of the Classification. It provides places for classifying:

(a) a thing “in general”, i.e., characterised by its intrinsic nature or function; the thing being either independent of a particular field of use or technically not affected if statements about the field of use are disregarded.

Examples:

1. F 16 K has provision for valves characterised by constructional or functional aspects, i.e., the structure of the valve does not depend on the nature of the fluid passing therethrough or of any system of which the valve may form part.

2. C 07 has provision for organic chemical compounds characterised by their chemical structure but not by their application.

(b) A thing “specially adapted for” a particular use or purpose, i.e. modified or particularly constructed for the given use or purpose.

Example:

A 61 F has provision for a mechanical valve specially adapted for insertion into a human heart.

(c) The particular use or application of a thing.

Example:

C 05 has provision for the use of an organic chemical compound as a fertiliser.

(d) The incorporation of a thing into a larger system.

Example:

B 60 G has provision for the incorporation of a leaf spring into the suspension of a vehicle wheel.

54. Places of category (a), above, are referred to as “function-oriented places”. Places of the other categories are referred to as “application places”.

55. Places, e.g., subclasses, are not always exclusively function-oriented or application-oriented in relation to other places.

Example:

Although F 16 K (valves, etc.) and F 16 N (lubricating) are both function-oriented subclasses, F 16 N includes application places for certain valves specially adapted for lubrication systems (e.g., F 16 N 23/00 - special adaptations of check valves), while, conversely, F 16 K includes application places for lubricating features of gate valves or sliding valves (see, for example, F 16 K 3/36 - features relating to lubrication).

Furthermore, the expressions “function-oriented place” and “application place” cannot always be regarded as absolute. Thus, a given place may be more function-oriented than another place but less function-oriented than yet a further place.

Example:

B 60 D concerns vehicle connections in general and is therefore more function-oriented than B 62 D 53/08, which is specifically directed to fifth-wheel couplings for tractor-trailer combinations, but is less function-oriented than F 16 B, which relates to connecting constructional elements in general.

56. It is important to note that not every technical subject is represented in each of the categories set out in paragraph 53, above.

Example:

The Classification does not provide for the intrinsic function of striking. It does, however, provide for apparatus specially adapted for a particular striking purpose, e.g. golf clubs (A 63 B), hand hammers (B 25 D).

CLASSIFICATION OF TECHNICAL SUBJECTS OF INVENTIONS

General Observations

57. It is of great importance to identify accurately the technical subject(s) with which the invention is essentially concerned. Therefore, consideration should be given to the thing involved in relation to each category set out in paragraph 53, above, in order to determine the appropriate place in the Classification.

Example:

If a document discloses pistons, consideration must be given to whether the technical subject is a piston itself, or whether the technical subject is different, for example, the special adaptation of a piston for use in a particular apparatus, or the arrangement of pistons in a larger system, e.g., in an internal-combustion engine.

58. Often, the only information which is of importance in the disclosure of a given subject is information relating to a particular field of use, and the application places are intended to cover completely the classification of such subjects. The function-oriented places embrace a wider concept in which the constructional or functional characteristics of a subject are applicable to more than one field of use, or in which the application to a particular field of use is not considered to be essential.

59. When it is doubtful whether to classify a technical subject in a function-oriented place or in an application place, the following should be observed:

(a) If a particular application is specified, but not considered to constitute the essential technical characteristics of the subject, classification is made in the function-oriented place, if available. This is likely to be the case when several applications are specified.

(b) If the essential technical characteristics of the subject relate both to the intrinsic nature or function of a thing and to its particular use, or its special adaptation to or incorporation into a larger system, classification is made in both the function-oriented place and the application place, if available.

60. When classifying a larger system as a whole, attention should be given to parts or details thereof which are not trivial and may be of general use. Classification of both is necessary.

Example:

When a document is concerned with the incorporation of a given thing, e.g., a leaf spring, into a larger system, e.g., a vehicle wheel suspension, it is therefore concerned with the larger system and should be classified in the place for this system (B 60 G). If the document is also concerned with the thing itself, i.e., the leaf spring as such, it is also necessary to classify the document in the place for the thing itself (F 16 F).

61. When classifying or searching in a place indicated by any one of the categories referred to in paragraph 53, above, the existence of a place for the subject being classified or searched in other places indicated by other categories should always be borne in mind.

Example:

Filters in general are classified in subclass B 01 D, but filters specially adapted for particular purposes, or in combination with other apparatus, are classified in application places, e.g., A 01 J 11/06, A 47 J 31/06, D 01 D 1/10.

62. When using the Classification, it has to be borne in mind that, as is apparent from paragraphs 63 to 69, below, the technical subject of an invention may be expressed in different forms. If, for one of these forms, no distinct place has been provided in the Classification, the most appropriate one of the places existing for the other forms is used for classifying.

Chemical Compounds

63. When the subject of the invention concerns a chemical compound (organic, inorganic or macromolecular), it is classified in section C according to its intrinsic nature, i.e., according to its chemical structure. When it also concerns a specific field of use, it is also classified in the place provided for that field of use, if such field of use constitutes an essential technical characteristic of the subject and an appropriate place exists. However, when the subject of the invention concerns only the application of a compound, it is classified only in the place covering the field of use.

Chemical Mixtures or Compositions

64. A chemical mixture or composition forming the subject of the invention is classified in a place according to the intrinsic nature of the mixture or composition if such a place exists, e.g., C 03 C (glass), C 04 B (cement, ceramics), C 08 L (compositions of organic macromolecular compounds), C 22 C (alloys). If such a place does not exist, it is classified according to its use or application. If, however, the use or application constitutes an essential technical characteristic of the subject of the invention, a mixture or composition is classified according to both intrinsic nature and use or application.

Preparation or Treatment of Compounds

65. When the subject of the invention concerns a process of preparation or treatment of a chemical compound, it is classified in the place for the type of compound concerned. If places exist for the process of preparation or treatment, it is also classified therein. General processes for the preparation, or treatment, of classes of compounds are classified in the groups for the processes employed, when such groups exist.

Apparatus or Processes

66. When the subject of the invention concerns an apparatus or process for the making or treatment of articles of manufacture, it is classified in the place dealing with the process or operation involved or the apparatus used. If no place exists for the apparatus, it is classified in the place for the process performed by the apparatus. If no place exists for the process, it is classified in the place dealing with the apparatus for performing the process. If neither place exists, it is classified in the places dealing with the articles of manufacture as such.

Articles of Manufacture

67. When the subject of the invention concerns an article, it is classified in the place dealing with the article. If no place exists for the article itself, it is classified in an appropriate function-oriented place or, if not possible, according to the field of use.

Multistep Processes, Plants

68. When the subject of the invention concerns multistep processes or plants in which the essential characteristic resides in the combination of process steps or apparatus, it is classified as a whole, i.e., in a place provided for such combination, e.g., subclass B 09 B. If no such place exists, it is classified in a place dealing with the product obtained by such combination. When the subject of the invention concerns also an individual element of the combination, the element is classified separately.

Details, Constructional Parts

69. When constructional or functional details or parts are only applicable to, or only of use for, one specific kind of apparatus, they are classified only in the place for that apparatus. However, when distinct places are provided for different kinds of apparatus, there may sometimes be special places provided for constructional or functional details or parts of such apparatus, which are applicable to

more than one of the different kinds of apparatus. Such constructional or functional details or parts are classified in those places, which may appear either as a main group (see, for example, in A 45 B, where 11/00 to 23/00 cover the various kinds of umbrella, while 25/00 covers details of umbrellas applicable to more than one kind of umbrella) or as a subgroup within a main group (see, for example, H 04 B 3/02 which covers details applicable to different types of line transmission systems, while H 04 B 3/52 covers details applicable to line transmission systems for transmission between fixed stations via waveguides, and H 04 B 1/00 covers details applicable to, for example, both line transmission systems, covered by 3/00, and radio transmission systems, covered by 7/00).

More than one Technical Subject; One Subject Covered by Several Groups; General Chemical Formulae (so-called "Markush"-Type Formulae)

70. When the invention is immediately and essentially concerned with more than one technical subject (see paragraphs 82 and 83, below), each being covered by a different group, the symbol of each of these groups is allotted. In case one and the same technical subject is covered by more than one group under the same main group and at the same level of indentation, but resides merely in the combination of matter covered by each of those groups separately without the matter itself being of interest for search purposes, for example, a multistep process, an apparatus or mixture described by its constituent parts, classification should be in the hierarchically higher group unless a specific group is provided for such combination. However, if the technical subject is covered by groups under different main groups, and there is not provided a "general" main group, as mentioned in paragraph 35, above, or referred to in paragraphs 68 and 69, above, the symbols of each of these groups should be allotted. For general chemical formulae (so-called "Markush"-type formulae), see the next paragraph.

71. In respect of general chemical formulae (so-called "Markush"-type formulae),

(a) when the invention is concerned with organic compounds defined by a general chemical formula, the following classifying procedure is applied:

Step 1: The general formula is classified as a whole only when it can be accommodated within a small number of classification places (for example, in no more than five places).

Step 2: All fully identified compounds are classified if they are

(i) claimed specifically, as such or in a composition,

(ii) products of a claimed process, or

(iii) derivatives of any of these.

By "fully identified" is meant a compound or product where

(a) the structure is given by name or formula, or can be deduced from its preparation from specified reactants, not more than one of which is selected from a list of alternatives, and

(b) the compound or product is characterised in the document by a physical property (for example, the melting point), or its preparation is described in a worked example giving practical details.

Step 3: Other disclosures are classified if they are considered to constitute useful information to the searcher.

(b) when complete classification would lead to a high number of classification symbols, it may be necessary to limit that number of symbols, e.g., when compounds to be classified fall into the majority or all of the subgroups under one and the same hierarchically higher group, in which case classification is made under the said higher group only. Otherwise, classification is made under all appropriate subgroups, and not under the said higher group.

APPROACH TO CLASSIFYING

72. In order to determine the appropriate classification of a technical subject, a systematic approach should be adopted and followed step by step, i.e,

(a) the relevant section may first be identified, then the class and subclass, and finally, the main group or the lowest order subgroup which is still wide enough in scope to cover the essential characteristics of the technical subject to be classified, always bearing in mind that the scope of any group can never exceed the scope of its less indented group or that of its subclass;

(b) as an alternative, a group may be identified directly, for example, by using the Catchword Index to the Classification. In that case, the hierarchically higher places should be considered in order to verify the correctness of that group.

73. In certain places of the Classification, some particular classifying rules are specified. The purpose of these rules is to limit multiple classification, to improve consistency and to facilitate searching without harming its quality. The places where such rules apply are clearly marked by a note at the highest place covered by such classifying rules. Such rules are:

(a) Last Place Rule - In certain parts or places of the Classification, where a particular technical subject is covered by two or more places of the same hierarchical level or indentation, a “last place rule” has been introduced. According to this rule, such a technical subject is only classified in the place which appears last in the Classification. This rule is applied successively at each hierarchical level or indentation at which the technical subject in question is covered by two or more places; thereafter, the selection of the appropriate place follows the rule set forth in paragraph 72, above.

In each part of the Classification (class, subclass or group), where this rule applies, this rule is clearly set out in a note specific to the subject matter concerned. For example, see the relevant notes in A 61 K, C 07, C 08 G, C 10 M, G 07 D 5/00.

The “last place rule” is in effect a systematic precedence rule which obviates the need for separate precedence in each of the places concerned.

(b) Other Rules - In a limited number of places in the Classification other particular rules exist which are clearly specified in notes at the places concerned, e.g., B 32 B, C 04 B 38/00, C 08 L, G 05 D.

IV. HYBRID SYSTEMS

74. In specific areas of the Classification, the concept of hybrid systems has been introduced in order to improve the effectiveness of the Classification.

75. A hybrid system, forming part of the Classification, is a system which provides for a patent document classified according to the Classification to bear (i) the classification symbols appropriate to the technical subjects disclosed in the document and (ii), associated with those symbols, indexing codes which identify elements of information about the technical subjects in addition to the information covered by one or more of the classification symbols. Such elements of information may, for example, complement the information covered by the classification symbols by indicating the essential constituents of a composition or mixture, or constituent groups of a compound, or by identifying elements or components of a process or structure; alternatively they may identify uses or applications of classified technical subjects.

76. Indexing codes consist of a subclass symbol followed by two numbers separated by a colon, for example, B 29 K 9:06. An indexing code is, thus, similar to a classification symbol (see paragraph 18, above) but has a colon (:) instead of the oblique stroke (/). In the Classification, the following situations occur:

(a) In some areas, separate entries are used for classification purposes and for indexing purposes. In a subclass (for example, B 62 D) which contains entries of both kinds, the indexing entries follow all of the classification entries. Some subclasses (for example, B 29 K) contain only indexing entries; these subclasses are listed in the “Contents of Section” with the indication “For indexing purposes only”.

(b) In other areas, the same entries are used both for classification purposes and indexing purposes. In these areas there is no duplication of the entries, and only the classification symbols are shown. When those entries are used for indexing purposes, the oblique stroke is replaced by a colon. The entries that can be used for both purposes are indicated by a note at the beginning of each such area and, in the printed version of the Classification, by a vertical line to the left of the group numbers (see, for example, A 01 N 25/00).

77. Indexing codes can only be used in association with classification symbols. Each place in the Classification where indexing codes may be used is indicated by a note. Similarly, a note, title or heading before each indexing scheme indicates with which classification symbols those indexing codes are associated.

LINKED INDEXING CODES; UNLINKED INDEXING CODES

78. Indexing codes are presented in the following two different ways on patent documents:

(a) Linked Indexing Codes

With respect to certain places in the Classification, it is necessary to show with which classification symbols the indexing codes are associated, as a practical means for rendering searches more effective.

For those places, the indexing codes and the classification symbols with which they are associated are linked by being printed within round brackets. Within these brackets, the classification symbol involved is listed first, followed by the indexing codes. Separate brackets are used for each set of linked indexing codes, for example, (C 08 F 210/16, 214:06) (C 08 F 255/04, 214:06).

(b) Unlinked Indexing Codes

With respect to other places in the Classification, it is not necessary to show with which classification symbols the indexing codes are associated, since linkage would not be of much benefit for retrieval purposes. Therefore, those indexing codes appear alone, i.e., unlinked, for example, B 29 K 9:06.

Whether indexing codes have to be presented linked or unlinked is indicated by notes at the relevant places in the Classification. Note (4) following the title of C 04 B is an example of a note prescribing a linked presentation, and Note (1) following the title of B 29 K is an example of a note prescribing an unlinked presentation.

79. Whenever possible, the layout of the indexing schemes is hierarchical, facilitating their presentation, and the elaboration of the schemes is such that truncation of the indexing codes is feasible when carrying out database searching.

Example (part of the indexing scheme in subclass B 01 J):

101 : 00	Catalysts containing as, or in, a component thereof oxides or hydroxides of magnesium, boron, aluminium, silicon, titanium, zirconium or hafnium
101 : 10	• of magnesium
101 : 20	• of boron
101 : 30	• of aluminium (aluminosilicates 101:62)
101 : 32	• • Alumina
101 : 34	• • • Hydrated alumina
101 : 36	• • • Gamma-alumina

APPLICATION OF THE INDEXING CODES

80. Indexing codes are applied in a non-discretionary manner, which means that all indexing codes identifying elements of information about a technical subject already classified as such have to be allotted, avoiding thereby any judgment by the person indexing on whether or not to allot a particular indexing code, when the said elements of information are present. This principle may be departed from in very exceptional circumstances, for example, indexing of “Markush”-type formulae, when non-discretionary indexing would result in an unjustifiable number of indexing codes having to be applied.

81. Whereas in a classification scheme a hierarchically higher group may cover subject matter classifiable in more than one of its subdivisions (see paragraph 70, above), in an indexing scheme the hierarchically higher group is only to be used in a residual manner, i.e., to record a specific feature not provided for in any of its subdivisions. When indexing two or more elements of information about a technical subject, which elements are covered by two or more indexing codes at the same level of indentation, all of those indexing codes should be allotted and not the hierarchically higher code.

Examples:

1. A catalyst comprising rhenium oxide, classified in group B 01 J 23/36, containing, as components, hydrated alumina and gamma- alumina is indexed in 101:34 and 101:36 (see paragraph 79, above).

2. A welding process for attaching flanges is described as being applicable to the manufacture of railway rails, structural beams and rail vehicle wheels.

In this case, B 23 K 101:26 and 101:28 should be applied for rails and beams, respectively, together with B 23 K 101:00, covering rail vehicle wheels that are not specifically provided for in any of the subdivisions of B 23 K 101:00. See the following excerpt of the indexing scheme referred to.

101 : 00 Articles made by soldering, welding or cutting
101 : 02 • Honeycomb structures
101 : 04 • Tubular or hollow articles
101 : 06 • • Tubes
101 : 08 • • • finned or ribbed
101 : 10 • • Pipe-lines
101 : 12 • • Vessels
101 : 14 • • Heat exchangers
101 : 16 • Bands or sheets of indefinite length
101 : 18 • Sheet panels
101 : 20 • Tools
101 : 22 • Nets, wire fabrics or the like
101 : 24 • Frameworks
101 : 26 • Railway- or like rails
101 : 28 • Beams

V. MATTER TO BE CLASSIFIED OR INDEXED; PRESENTATION OF CLASSIFICATION SYMBOLS AND INDEXING CODES; X-NOTATIONS

82. The primary purpose of the Classification is, as noted in paragraph 2, above, to facilitate search. For this purpose each separate technical subject disclosed in a patent document should be classified if it is of interest for search purposes.

INVENTION INFORMATION; ADDITIONAL INFORMATION

83. Patent documents

(a) comprise “invention information”, i.e., technical information as defined by the claims, with due regard given to the description and the drawings (if any). The classification symbols allotted should not be restricted to the place or places in the Classification which cover only one aspect of a technical subject identified. Due regard should also be given to further places in the Classification where other non-trivial aspects of that technical subject may need to be classified;

(b) may comprise “additional information”, i.e., non-trivial technical information given in the description, which is not claimed and does not form part of the invention as such but might constitute useful information for the searcher.

REPRESENTATION OF INVENTION INFORMATION AND ADDITIONAL INFORMATION

84. The invention information is represented either by classification symbols alone or by both classification symbols and indexing codes. The additional information is represented by classification symbols, by indexing codes or by both.

85. Classification symbols from any place in the Classification, together with any indexing codes associated with those symbols, may be used for indicating additional information.

OBLIGATORY CLASSIFICATION

86. According to Article 4(3) of the Strasbourg Agreement Concerning the International Patent Classification, in classifying a patent document, the competent authorities of the countries of the Special Union shall indicate “the complete symbols of the Classification applied to the invention to which the patent document relates”. This means that it is an obligation on the part of the said authorities to allot the classification symbols which represent the invention information (see paragraph 83(a), above).

NON-OBLIGATORY CLASSIFICATION; NON-OBLIGATORY INDEXING

87. In order to improve the benefits to be derived from the Classification, it is desirable that the invention information, as defined in paragraph 83(a), above, be indexed, if possible, and that also the additional information, as defined in paragraph 83(b), above, be classified or indexed, since, upon publication of the patent document concerned, such information about the technical disclosure may be relevant, for example, for future patent applications. The indication of such information is particularly important for patent documents published at the first publication level.

PRESENTATION OF CLASSIFICATION SYMBOLS AND INDEXING CODES

88. The order of classification symbols and indexing codes is as follows:

1. Classification symbols repesenting invention information, of which that symbol which most adequately represents the invention should be listed first.
2. After a double oblique stroke -
   (i) classification symbols representing additional information
   (ii) linked indexing codes
   (iii) unlinked indexing codes.

If the listing of symbols or codes following the double oblique stroke commences on a new line, the double oblique stroke should be printed on that line immediately before those symbols and codes.

89. All symbols and codes are separated from each other by commas, but no comma is needed before or after the bracket used for a set of linked indexing codes. When two or more symbols or codes, relating to the same subclass, are listed consecutively, the subclass symbol is indicated only for the first symbol or code; for the following symbol(s) or code(s) only the numbers identifying the groups are indicated, separated by commas, except that for the first symbol within a bracket the subclass symbol must be repeated.

90. Examples illustrating the presentation of classification symbols and indexing codes:

1. C 08 F 210/16, 255/04 // A 61 K 47/00, C 09 J 151/06 (C 08 F 210/16, 214:06) (C 08 F 255/04, 214:06)

These symbols and codes indicate

- two classification symbols representing invention information, C 08 F 210/16 and C 08 F 255/04;
- two classification symbols representing additional information, A 61 K 47/00 and C 09 J 151/06;
- two sets of linked indexing codes, (C 08 F 210/16, 214:06) and (C 08 F 255/04, 214:06), which indicate, respectively, that the ethene-propene copolymer, besides the already indicated monomers, contains vinyl chloride, and that vinyl chloride has been polymerized on to an ethene-propene copolymer.

2. B 29 C 65/08 // B 29 K 83:00, B 29 L 23:18 These symbols and codes indicate

- one classification symbol representing invention information, B 29 C 65/08, concerning the working of plastics by joining preformed parts using ultrasonic means;
- two unlinked indexing codes, B 29 K 83:00 and B 29 L 23:18, which indicate, respectively, that the material extruded is a silicon-containing polymer and that the article formed is a pleated hose.

X-NOTATIONS

91. As patent applications are intended to deal with new developments it is unavoidable that from time to time subject matter appears that cannot be dealt with satisfactorily in the Classification, for example, a new art, which is not covered by an existing place. Because it is nevertheless necessary that such subject matter be classified, the X-notation has been provided for use in such cases.

92. The letter "X" is added to the classification symbol and may denote either of the following two things:
    (a) When added to a subclass (e.g., A 01 B X), a class (e.g., A 01 X) or a section (e.g., A X), or in an extreme case used alone (X), it means that the classification symbol, while covering the subject matter fully, is incomplete, and it replaces the part of the symbol that could not be indicated because there was no satisfactory classification. Thus, D 06 X could be used to classify a technical subject of an invention concerning the treatment of textiles which cannot be classified in any of the existing subclasses of class D 06.
    (b) When added to a main group, it indicates that the classification given is imprecise, and that the group in question has been used because it comes closest to the subject matter classified without corresponding to it exactly. Thus, G 01 N 3/00 X could be used to classify a technical subject of an invention concerning investigating strength properties of semi-liquid substances through the application of mechanical stress, whereas group 3/00 covers such investigating applied to solid materials.

93. The use of the "X" indicates an insufficiency in the Classification, a fact that is important for its revision. For this reason, all assignments of X-notations should be notified to the International Bureau of WIPO.

VI. GLOSSARY

94. The terms or expressions in this Glossary are selected from those used in the Classification, as requiring some explanation of their meaning or use, for example, because of a need for choice between alternative meanings. The explanations given should not be regarded as rigid definitions. The meaning of a term or an expression should always be considered in the context of the technical subject matter dealt with.

95. Attention is drawn to the definitions of certain words and expressions which are set forth earlier in the Guide, e.g., in paragraphs 31 to 42.

96. The term "object" is used in these explanations to mean any tangible technical matter, e.g., article of manufacture, apparatus, piece of material.

97. The term "thing" is used to mean any technical matter, tangible or not, e.g., process, product or apparatus.

98. Any definitions given in notes in the Classification override, for the places concerned, the explanations given in this Glossary.

99. The following abbreviations are used:
(A) = adjective; **(N)** = noun; **(V)** = verb.

adaptation	=	1. modification to meet certain conditions; 2. a thing embodying such modification.
arrangement of	=	assemblage or relative disposition. This term may cover modification of one of the objects concerned, but only if such modification is not of interest apart from the arrangement.

arrangements for	=	any means of fulfilling a specified function, normally comprising a combination of things which may be modified, e.g., F 16 D 23/02 Arrangements for synchronisation.
characteristic (N)	=	distinguishing feature.
composition (chemical)	=	mixture of ingredients, of more or less specified nature and proportions.
control (V)	=	affect a variable (e.g., the speed of an engine) in any way, e.g., prevent variation (see also definition in class G 05).
engine	=	a machine for producing mechanical power, e.g., for rotating or reciprocating a member, from pressure energy of a fluid.
essential	=	a characteristic is essential for classification in a given group if its absence would necessitate its classification in a different group.
feature	=	any attribute of a thing, e.g., its shape, its purpose, its manner of use, any part or quality.
fluid (N)	=	any gas or liquid.
fluid (A)	=	having the properties of a gas or liquid.
gearing	=	mechanical, hydraulic, electric, or other means for transmitting mechanical motion or force.
handling	=	dealing with material or objects in any way without intentionally or essentially altering any property, even temporarily (e.g., without deforming, heating, electrifying), e.g., transporting, storing, positioning, dispensing, winding, loading.
of interest	=	having features which are of importance in the stated context.
laminate	=	material of substantially uniform thickness composed of layers in more or less continuous contact and bonded together, e.g., plywood, The layers may be discontinuous, but not gapped.
layered product	=	material composed of strata (continuous, discontinuous, or with gaps) of any form (e.g., honeycomb, corrugated) secured together in any way. Normally of substantially uniform thickness overall (i.e., ignoring local variations such as are produced by a corrugated face layer); may be in the form of an article, e.g., a container. This term is of wider scope than “laminate”, covering material with voids between or in any layer.
manually	=	by hand; by any other part of the human body unless a more restricted meaning is clearly understood.
measure	=	enable a value, or its relation to a datum, to be determined (see also definition in class G 01).
monitor	=	maintain a continuous or periodical watch (human or instrumental) on, to enable action to be taken or initiated, or a signal to be given, if undesired conditions occur.
motor	=	an apparatus for producing mechanical motion from any other form of energy; the motion may be continuous or in separate strokes. This term covers “engine”.
pertinent	=	of a nature which is important to the field in question, e.g., in F 02 M 17/00 (“Carburettors having pertinent characteristics...”) the characteristics must be peculiar to the purpose of supplying combustion engines, in accordance with the subclass title.
plant	=	a combination of machines, apparatus, etc. to produce a desired result, in which each machine, etc. performs a function that can be dealt with separately and is often studied individually, as opposed to “apparatus”, in which only the overall function is normally of interest, though parts may also be of interest constructionally. For example, ore-treating plant comprising crusher, conveyer, screen, and dust separator, or engine plant comprising two engines related in respect of steam supply or drive.

plastic (A)	=	more or less easily deformable, locally or as a whole, by force in any direction, to assume and retain any desired shape.
plastics (N)	=	macromolecular compounds or compositions based on such compounds, e.g., synthetic resins.
plastics (A)	=	of plastics.
preparation	=	1. the making of any kind of substance, material, compound, or composition; 2. pretreatment of a semi-finished material or article for subsequent treatment, etc. 3. composition for a particular purpose, e.g. medicinal.
stock	=	a piece (which may be of indefinite length) of solid material in a particular form resulting from some preliminary operation (a semi-finished product), for use in an operation in which it is divided up (before or after some shaping or other operation) in the production of articles.
treatment	=	use of a process, or series of processes, to produce a desired effect on material or objects. A treatment may alter the nature of the material or the objects completely (e.g., chemical treatment); otherwise its purpose is usually to alter some property (e.g., by heating, coating, polishing, sterilising, magnetising), without altering overall form, though the term also covers changing shape. The effect may be temporary or permanent, and may apply to the whole of an object or only part of it.
use (N)	=	1. purpose for which, or field of art in which, a thing is employed; 2. fact that a thing is employed, or the manner in which it is employed.
value	=	magnitude or numerical expression of a variable or of a measurable constant.
variable (N)	=	a measurable quantity or property which may, but need not, change, e.g., length, speed, voltage, colour. Since such a quantity or property may, for a given entity or in given circumstances, remain constant in value, means for measurement of a variable are in general the same as for measurement of a constant of the same nature, and reference to “a variable” must be interpreted accordingly (see Note to section G).
working-up	=	treating substances to obtain them in desired final state or form, e.g. colouring by incorporating pigments, granulating, producing sheets or articles.

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