

# International Patent Classification

**Eighth Edition (2006)**

**General Information**

**GENEVA 2006**

**A-B-C-D-E-F-G-H**



WORLD  
INTELLECTUAL  
PROPERTY  
ORGANIZATION

GENERAL INFORMATION

ON THE  
EIGHTH EDITION  
OF THE

INTERNATIONAL PATENT  
CLASSIFICATION (IPC)



World Intellectual Property Organization

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## INTRODUCTION

1. When an inventor wishes to have his invention protected, he has to apply to the competent government authority for a patent. In his application, he has to describe his invention. In some countries, the patent application is then published by the said authority, which hereinafter will be called “the industrial property office”.
2. Once the patent is granted, it is usually published in the form of a document by the industrial property office which has granted it. This document contains, with or without changes, the description of the invention furnished by the applicant.
3. More than 100 countries publish<sup>1</sup> patent applications and patents – hereinafter called “patent documents”<sup>2</sup> – and in recent years the total number of such documents issued each year has reached nearly two million.
4. Inventions are made in all fields of science and technology, that is – to use the most customary basic distinction among the three main fields – in the chemical, the electrical and the mechanical fields.
5. The amount of information contained in patent documents is immense. They contain practically everything that represents an advance in the knowledge of mankind in the field of technology. It is therefore extremely important that this information be accessible to anyone who needs it. Such accessibility exists in theory because the patent documents are published, that is, are made available to any member of the public. But, in practice, accessibility presents great difficulties because of the enormous number of published patent documents and because, as already mentioned, these documents deal with all aspects of technology.
6. Obviously, what is needed is a system which allows patent documents relating to any particular area of technology to be identified and retrieved.
7. The International Patent Classification (IPC) is such a system. In its eighth edition, it subdivides technology into almost 70,000 fields or groups. Each group is described in a few words and identified by a “classification symbol” consisting of numbers and letters. The wordings of these 70,000 groups are contained in a publication, entitled the “International Patent Classification”. This title is used to designate both the classification system and the publication.

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<sup>1</sup> In this brochure, “publish” should be understood as including also the “laying open for public inspection” by the industrial property office concerned.

<sup>2</sup> In some countries, forms of protection other than patents are also available (for example, inventors’ certificates, utility models, utility certificates). For the purposes of this brochure, the expression “patent documents” includes also documents applying for or granting such forms of protection.

8. The system works in the following way. Before publication, the patent document is “classified”, that is to say, it is assigned – by qualified staff of the industrial property office – the classification symbol or symbols which correspond to the technical field or fields to which the invention described in the document relates. The symbol or symbols are printed or displayed on the front page of the published document.

9. Any person wishing to know which patent documents contain information on a given technical field only needs to refer to the IPC to find which one of the 70,000 or so terms relate to that field. It is then possible to find all the documents that have been assigned that symbol. This operation is called “retrieval”, both in the abstract sense of the word (finding or recovering the information) and in the physical sense of the word (finding the document which contains the information).

10. The rest of this brochure gives details on the various aspects of the IPC and its operation.

## STRUCTURE OF THE IPC

11. The version of the IPC which has been in force since January 1, 2006, is the eighth edition or IPC-2006. It is the result of IPC revision and reform carried out in the years 1999 to 2005. The following remarks are based on the eighth edition.

12. The IPC is a hierarchical system and is divided into the following subdivisions: sections, classes, subclasses and almost 70,000 groups (of which approximately 10% are “main groups”, and the rest “subgroups”).

13. Each section has a title and a symbol. The title consists of one or more words and the symbol consists of a capital letter of the Roman alphabet. They are 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

14. Each class has a title and a symbol. The title consists of one or more words and the symbol consists of the symbol of the relevant section followed by a two-digit Arabic number. For example, the subsection “Foodstuffs; Tobacco” has the following four classes:

- A21 Baking; Equipment for making or processing doughs; Doughs for baking
- A22 Butchering; Meat treatment; Processing poultry or fish
- A23 Foods or foodstuffs; Their treatment, not covered by other classes
- A24 Tobacco; Cigars; Cigarettes; Smokers’ requisites

15. Each subclass has a title and a symbol. The title consists of one or more words and the symbol consists of the symbol of the relevant class followed by a capital letter of the Roman alphabet. For example, class A21 (“Baking; Equipment for making or processing doughs; Doughs for baking”) is divided into three subclasses (B, C, D) as follows:

- A21B Bakers’ ovens; Machines or equipment for baking
- A21C Machines or equipment for making or processing doughs; Handling baked articles made from dough
- A21D Treatment, e.g. preservation, of flour or dough for baking, e.g. by addition of materials; Baking; Bakery products; Preservation thereof

16. Each main group and subgroup has a title and a symbol. The title consists of one or more words and the symbol consists of the subclass symbol followed by two numbers separated by an oblique stroke. The first number has one, two or three digits; the second has two, three, four or five digits. For a main group, the second number consists of two zeros. For example, subclass A21B (“Bakers’ ovens; Machines or equipment for baking”) has five main groups (1/00, 2/00, 3/00, 5/00, 7/00), the first two of which are the following:

- A21B 1/00 Bakers’ ovens
- A21B 2/00 Baking apparatus employing high-frequency or infra-red heating

17. Main group A21B 1/00 (“Bakers’ ovens”) is divided into 19 subgroups, the first four of which are the following:

- A21B 1/02 . characterised by the heating arrangements
- A21B 1/04 . . Ovens heated by fire before baking only
- A21B 1/06 . . Ovens heated by radiators
- A21B 1/08 . . . by steam-heated radiators

18. As can be seen from the above example, not all the subgroups are on the same hierarchical level; the highest are preceded by one dot, the lower – according to their level – by two, three, four or more dots. However, the symbol does not indicate the hierarchical level of the subgroup.

19. In some areas of the eighth edition of the IPC, “hybrid” or indexing systems are provided, in order to improve the effectiveness of the IPC and make it more efficient for the retrieval of documents. In such systems, indexing codes identify elements of information about the disclosure which can be useful for certain types of searches.

## THE STRASBOURG AGREEMENT OF 1971

20. The IPC system is the result of an international cooperative effort by the industrial property offices of many countries.

21. The basis for this cooperative effort was a multilateral international treaty, the “European Convention on the International Classification of Patents for Invention”, concluded in 1954 under the aegis of the Council of Europe. In 1967, BIRPI, the predecessor of the World Intellectual Property Organization (WIPO), and the Council of Europe entered into negotiations for the common administration of the continuing work of improving the Classification during a transitional period, and the joint administration of the Classification was commenced in 1969. In 1971, a new treaty was negotiated and signed under the joint auspices of the Council of Europe and WIPO. That treaty is the “Strasbourg Agreement Concerning the International Patent Classification” (the “Strasbourg Agreement”), adopted at Strasbourg on March 24, 1971, by a diplomatic conference of the States members of the International (Paris) Union for the Protection of Industrial Property. Under the Strasbourg Agreement, which entered into force in 1975, the administration of the International Patent Classification became the responsibility solely of WIPO. In other words, the transitional period, which started in 1969, ended in 1975 and brought to an end the responsibility of the Council of Europe with respect to the IPC. The IPC thus became a worldwide system administered by an intergovernmental organization of global scope.

22. Any country party to the Paris Convention for the Protection of Industrial Property may become party to the Strasbourg Agreement, which confers several rights and imposes several obligations on the State that has become party to it. The most important right is the right to participate in the continuing work of improving the IPC, such improvement consisting in the amendment of the Classification by a Committee of Experts of which each State party to the Strasbourg Agreement is a member. The most important obligation is to apply the Classification, that is, to indicate the relevant classification symbols on each patent document published by the industrial property office of such a State. Providing this information is the responsibility of that office.

23. The full text of the Strasbourg Agreement is available in the form of a brochure which can be ordered from WIPO (Publication No. 275).

## IPC REFORM

24. The Classification has been periodically revised in order to improve the system and to take account of technical development. The previous, seventh, edition of the IPC was in force from January 1, 2000, to December 31, 2005.

25. In 1999, the IPC Committee of Experts recommended, in parallel with IPC revision, to launch the reform of the IPC in order to adapt the Classification to the electronic environment, to increase its efficiency for the retrieval of patent information and to facilitate its use for small and medium-sized industrial property offices and the general public. Substantial changes to the IPC itself and to methods of its revision and use were needed. This recommendation was subsequently endorsed by the Assembly of the IPC Union.



26. The basic period of IPC reform has been completed in 2005. The eighth edition of the IPC entered into force on January 1, 2006. It already represents the reformed IPC and includes many new features elaborated in the course of the reform. The most important of them are described below.
27. One of the important features of the reformed IPC is its two-level structure which will better satisfy differing needs of various categories of users. The two-level system consists of a core level and an advanced level.
28. The core level contains approximately 18,000 entries at high hierarchical levels (classes, subclasses, main groups and subgroups). It is a relatively stable part of the IPC. Revision amendments to the core level will be made in three-year revision cycles when necessitated by technological progress.
29. The advanced level represents a further elaboration of the core level, i.e., it includes the core level and additional subgroups. Initially, it includes approximately 70,000 entries but its size will rapidly grow since revision amendments to the advanced level will be continuously made through an accelerated procedure under the supervision of a special subcommittee.
30. Although any industrial property office may choose which level to employ for classifying its published patent documents, it is intended that the relatively simple core level will be used for classifying and searching patent documents belonging to small and medium-sized national patent collections, while the more complex advanced level will be used for classifying and searching patent documents belonging to large collections. In particular, classification at the advanced level will cover patent documents included in the PCT minimum documentation.
31. The publication of the IPC in paper form will be continued, it will, however, be restricted to the core level, in view of its stability during the three-year revision cycles. The Internet publication contains the complete text of the Classification including the core and the advanced levels and becomes the principal form of the publication of the IPC. The Internet version incorporates the electronic layer, including various electronic data illustrating IPC entries or explaining them more in detail. The electronic layer enhances understanding and facilitates the use of the IPC for industrial property offices and the general public.
32. Classification definitions for selected subclasses of the IPC are already available in the electronic layer of the eighth edition. They are intended to provide more detailed explanations of the contents of IPC entries than the official text of the IPC. During further development of the IPC, classification definitions will be elaborated for all of the subclasses of the Classification. More than 3,000 structural chemical formulae are available for viewing in the electronic layer of the eighth edition. Their role is to illustrate chemical areas of the IPC by providing a visual graphic representation of the subject matter of the chemical areas. The electronic layer also contains facilities for displaying main groups of the IPC in the standardized order.

33. One of the objectives of IPC reform was to provide possibilities for performing patent searches with the use of the current version of the IPC only and to eliminate the need to rely on superseded IPC editions. This objective will be achieved by reclassification of patent collections according to revision changes in the IPC.

34. Access to the worldwide collection of patent documentation will be provided through the Master Classification Database (MCD). It represents a bibliographic database storing all bibliographic elements, including IPC symbols, of patent documents at various publication levels. The database also contains family information. The documents included in the MCD will be classified according to the current version of the core level of the IPC and the continuously updated advanced level. Documents included in the PCT minimum documentation will be reclassified by members of the Special Subcommittee for the Supervision of the Advanced Level of the IPC and some other large industrial property offices. In order to alleviate the workload of reclassification for other offices, their documents having patent family members in the PCT minimum documentation will be reclassified by automatic propagation of the reclassification data from the PCT minimum documentation.

35. The access to the Master Classification Database will be possible in several ways, for example, via the Esp@cenet of the EPO. The Esp@cenet will use the IPC data present in the MCD.

36. Many particular rules of the IPC were amended or further specified in the course of IPC reform. This concerns, for example, presentation of classification symbols on the front page of patent documents, priority rules in the IPC, principles of multiple classification, use of hybrid systems and classification procedures for patent documents at different publication levels. A large number of amendments to principles and rules of the Classification made it necessary to completely review and redraft the Guide to the IPC representing the only official handbook on classification. A number of special documents, relating to classification, revision and maintenance of the IPC, and creation of electronic data, have been elaborated during the IPC reform. They are available on the WIPO IPC website.

## IPC PUBLICATIONS AND ELECTRONIC PRODUCTS

37. As already indicated, the latest version of the IPC – which has been in force since January 1, 2006 – is the eighth edition. Its core level is published in the printed form in four bound volumes. There are two authentic versions, one in English and one in French. Sample pages of both sides of the title page appear as pages 1 and 2 of the Annex to this brochure.

38. Pursuant to Article 3(2) of the said Strasbourg Agreement, official texts of the Classification may be established in other languages. Complete texts of, for example, the seventh edition of the Classification were established in the Chinese, Croatian, Czech, Dutch, German, Hungarian, Japanese, Korean, Polish, Portuguese, Russian, Serbian, Slovak and Spanish languages.

39. The Guide to the IPC is published separately in Volume 5 of the printed publication. The main purpose of the Guide is to explain the layout and the use of symbols in the Classification, as well as the principles of the IPC and its interpretation. It also gives advice on how to classify and search patent documents according to the IPC.
40. Each section in the printed publication is preceded by a summary of its contents, indicating the subsections, classes and subclasses of that section. Sample pages of the three pages constituting the contents of section A appear as pages 3 to 5 of the Annex to this brochure.
41. Each class starts on a new page and is followed by the different subclasses into which the class is divided. Most subclasses are preceded by a summary of their contents, called the “Subclass Index”. Page 6 of the Annex to this brochure shows the first page of a class (class A23) and the core level of subclass A23B.
42. The Internet version of the eighth edition, in English and French, was published on the WIPO IPC website. Compared with the printed version, the Internet version contains the complete text of the Classification (core and advanced levels) and incorporates the electronic layer including supplementary information facilitating the use of the Classification, such as classification definitions, illustrating chemical formulae and main groups in a standardized sequence. Navigation in the text is possible using the hierarchical structure of the IPC, as well as by direct access to the relevant symbols of the Classification. Hypertext links provided allow to switch between the English and French versions and between IPC places interconnected by references.
43. Pages 7 to 9 of the Annex to this brochure shows the advanced level (complete text) of subclass A23B.
44. The use of the IPC is facilitated by a separate publication, the official “Catchword Index”. This is a book containing thousands of “catchwords” arranged in alphabetical order. Under most of these catchwords catchword phrases appear, narrowing the meaning of the catchword. Each catchword or catchword phrase indicates the place in the IPC which deals with the subject in question.
45. Page 10 of the Annex to this brochure is a sample of a typical page of the Catchword Index.
46. There is one official Catchword Index in English and one in French. Catchword indexes have also been established in other languages in order to facilitate the use of the IPC in those languages.
47. The official Catchword Indexes to the eighth edition were published in the printed form and on the Internet. References in the Catchword Indexes to the core level of the IPC are distinguished from references to the advanced level. The electronic version of the Catchword Indexes is published as part of the Internet version of the IPC.

48. Information on how subject matter has been transferred from one place to another in the IPC as a result of the revision work carried out during the seventh revision period (revision of the seventh edition of the Classification) is contained in the Revision Concordance List which is also published as part of the Internet version of the IPC. This is a publication which shows where subject matter of the seventh edition that has been transferred, as a consequence of the revision of that edition, can be found in the eighth edition of the IPC.

49. Page 11 of the Annex to this brochure is a sample of a typical page of the Revision Concordance List.

50. Various editions of the IPC are available on the IPC:CLASS CD-ROM. In its latest version (the fourth edition), IPC:CLASS contains the first to seventh editions of the IPC in English and French, the fourth to seventh editions in German and the fifth to seventh editions in Russian and Spanish. Furthermore, it contains the English, French and Russian catchword indexes and a bilingual (German/English) catchword index (the “Stich- und Schlagwörterverzeichnis”), elaborated by the German Patent and Trade Mark Office with the participation of the Austrian Patent Office. The Revision Concordance Lists associated with the various editions are also included.

51. The retrieval software enables the user to make queries using keywords, classification symbols or combinations of both in any of the data files on the CD-ROM. The user may choose to work (i.e., display menus, prompts and help screens) in any of the above-mentioned languages, can switch between different IPC editions and language versions and can consult the catchword indexes, the revision concordance data or the valid symbols data. The user also has a bridge to a number of online databases and databases on other CD-ROMs, permitting loading of IPC symbols in preformatted files, ready for use when searching in those databases.

52. A new version of the IPC:CLASS CD-ROM (Version 5) will be published in 2006. This version will contain the complete text of the eighth edition in English and French, including the Catchword Indexes and the electronic layer, and will incorporate facilities enabling downloading of amendments to the advanced level from the Internet.

53. Various files containing the IPC scheme (core and advanced levels), catchword indexes, Revision Concordance List, classification definitions, illustrating chemical formulae and other IPC-related material, are available in XML format for free downloading from the WIPO IPC website.

## USE OF THE IPC FOR CLASSIFYING THE PATENT DOCUMENTS OF VARIOUS COUNTRIES

54. According to the Strasbourg Agreement, patent documents must, as a rule, be classified according to the finest subdivisions of the IPC. However, if, in any country, the procedure for the grant of patents does not provide for a search of the state of the art (to determine, mainly, whether the invention claimed is novel), classification to subclass level is sufficient. Nevertheless, some countries have gone beyond their treaty obligations.

55. According to information available in January 2006, the following 76 countries and five international organizations applied the IPC to its full extent to their published patent documents, that is, down to the finest subdivision of that Classification (the year in parentheses, appearing, when known, after the name of a country or an organization, is the year from which the patent documents have been published by that country or that organization with the IPC symbols printed on them):

|  |  |
|--|--|
| African Intellectual Property Organization (OAPI) (1981)           | Ireland (1969)                                   |
| African Regional Intellectual Property Organization (ARIPO) (1985) | Israel (1969)                                    |
| Albania  | Japan (1975)                                     |
| Argentina (1973)   | Kazakhstan (1992)                                |
| Armenia (1993)   | Kenya (1975)                                     |
| Australia (1970)   | Kyrgyzstan (1993)                                |
| Austria (1969)   | Latvia (1994)                                    |
| Azerbaijan (1993)  | Lithuania (1994)                                 |
| Belarus (1992)   | Malaysia (1985)                                  |
| Bolivia (1985)   | Mexico (1980)                                    |
| Bosnia and Herzegovina (1994)                                      | Mongolia (1972)                                  |
| Brazil (1972)  | Netherlands (1969)                               |
| Bulgaria (1973)  | New Zealand (1983)                               |
| Canada (1977)  | Norway (1968)                                    |
| China (1985)   | Paraguay (1983)                                  |
| Croatia (1993)   | Peru (1984)                                      |
| Cuba (1974)  | Philippines (1972)                               |
| Cyprus (1975)  | Poland (1970)                                    |
| Czech Republic (1993)  | Portugal (1978)                                  |
| Democratic People's Republic of Korea (1983)                       | Republic of Korea (1979)                         |
| Denmark (1968)   | Republic of Moldova (1994)                       |
| Egypt (1974)   | Romania (1970)                                   |
| Estonia (1994)   | Russian Federation (1991)                        |
| Eurasian Patent Office (EAPO) (1996)                               | Serbia and Montenegro                            |
| European Patent Office (EPO) (1978)                                | Slovakia (1993)                                  |
| Finland (1968)   | Slovenia (1993)                                  |
| France (1969)  | Spain (1967)                                     |
| Georgia (1992)   | Sri Lanka (1980)                                 |
| Germany (1971)   | Suriname (1975)                                  |
| Greece (1985)  | Sweden (1967)                                    |
| Haiti (1987)   | Switzerland (1971)                               |
| Hungary (1970)   | Tajikistan (1993)                                |
| Iceland  | Thailand   |
| India (1975)   | The former Yugoslav Republic of Macedonia (1994) |
| Indonesia (1992)   | Trinidad and Tobago (1996)                       |
| Iraq (1980)  | Turkey (1988)                                    |
|  | Turkmenistan (1993)                              |
|  | Ukraine (1992)                                   |

United Kingdom (1967)  
United States of America (1969)  
Uruguay (1982)  
Uzbekistan (1993)

Venezuela (1978)  
Viet Nam  
World Intellectual Property Organization  
(WIPO) (1978)

56. Nineteen other countries currently classify their published patent documents only down to subclass level of the IPC (the year in parentheses, appearing, when known, after the name of a country, is the year from which the patent documents have been published by that country with the IPC symbols printed on them):

Bangladesh  
Belgium (1955)  
Chile (1969)  
Colombia (1978)  
Costa Rica  
Democratic Republic of the Congo (1972)  
Ecuador (1985)  
Guatemala  
Guinea  
Honduras

Italy (1970)  
Luxembourg (1973)  
Malawi (1964)  
Monaco (1975)  
Morocco  
Nicaragua  
South Africa (1973)  
Zambia (1965)  
Zimbabwe

57. It is estimated that approximately 50 million patent documents have been published so far in the world. Most of them are provided with the classification symbols of the IPC. Currently, the IPC is applied to 95 per cent of nearly two million annually published patent documents.

## USE OF THE IPC FOR THE RETRIEVAL OF PATENT DOCUMENTS

58. Industrial property offices need to retrieve the information contained in patent documents for establishing the “state of the art” for any given field of technology at any given point in time, and, on the basis of the state of the art as compared with the alleged invention described in any patent application, to decide whether it corresponds to certain criteria of patentability, mainly whether it is “new” and whether it is “non-obvious”. The state of the art is generally discovered by “searching” for (and finding) documents of possible relevance, that is – in the terminology of the Patent Cooperation Treaty (PCT) – “everything which has been made available to the public anywhere in the world by means of written disclosure ... and which is capable of being of assistance in determining that the claimed invention is or is not new and that it does or does not involve an inventive step (i.e., that it is or is not obvious)” (PCT Rule 33.1(a)). (Relevant disclosures may be other than patent documents, but for the purposes of this text only patent documents are considered.)

59. It is the classification of the patent documents which makes access to them possible. Patent documents bearing the same classification symbols or neighboring classification symbols were earlier generally assembled in what are called “files”, and the files most frequently needed by any “searcher” or “examiner” employed by an industrial property office were kept in or near the premises where he works. These files are generally referred to as “search files”. When the searcher made a search he scanned the documents contained in the

relevant files. Nowadays, examiners mostly use computerized databases which contain bibliographic data (including the IPC symbols), abstracts, titles and the full text of patent documents. The examiner can, from a computer in the office, interrogate one or more of the available databases, using IPC symbols and keywords. The computer identifies patent documents of possible relevance, and the examiner can then consult the full text of those documents, which may be kept in a numerical file, for example, stored on a CD-ROM.

60. Before the existence of the IPC, the search files were arranged according to the “national” classification used by the industrial property office. The classifications most used were the “American” or “U.S.”, the “British” or “U.K.”, the “German” and an earlier version of the German, “the old German”, the “Dutch” or “Netherlands” and the “Japanese”. Nowadays, almost all published patent documents can be searched with the use of IPC symbols.

61. Before making a search, it is essential to establish clearly the technical subject of the search and identify technical terms relating to this subject. To prepare for searching a technical subject with the use of the IPC, it is necessary to locate in the IPC the appropriate place.

62. For this purpose, a systematic approach could be adopted and followed step by step, i.e., the relevant section, class and subclass should first be identified and, then, the main group or the subgroup. It is important to remember that the title of each subgroup must be read as being restricted by the titles of the higher level subgroups, the main group and the subclass. Bearing this in mind, it is necessary to select a subgroup with the largest number of dots which still embraces all the essential characteristics of the technical subject.

63. For the uninitiated user, it is advisable to approach the Classification by using the official Catchword Index to the IPC. This publication contains thousands of catchwords representing technical terms used in patent documentation and technical literature, which are arranged in alphabetical order. The catchword phrases appearing under the catchwords give an indication of subject matter designated by IPC symbols.

64. An alternative method of direct accessing the IPC is using the natural language search in the Classification provided by the TACSY system. This system is available on the WIPO IPC website and allows to retrieve relevant places in the IPC at three hierarchical levels, subclass, main group and subgroup, by introducing a free text in the query field.

65. WIPO actively promotes the universal use of the IPC. For example, the IPC is used for classifying and searching in various patent documentation and information centers, such as the African Patent Documentation and Information Center (CADIB), established under the auspices of the African Intellectual Property Organization (OAPI), and the Patent Documentation and Information Centre for English-Speaking Africa, established under the auspices of the African Regional Intellectual Property Organization (ARIPO).

66. WIPO has assisted, or is assisting, industrial property offices in developing countries to establish information centers for accessing patent documentation.

## TRAINING ON THE USE OF THE IPC

67. WIPO provides intensive training in the use of the IPC for the staff of the national or regional industrial property offices concerned by development projects. WIPO also organizes training courses in the use of the IPC, where experts from industrial property offices or from WIPO instruct in the use of the IPC for classifying as well as for searching. Such training courses, which are usually intended for industrial property offices of a particular region, have been organized, for example in 2005, in Finland, Mexico and Ukraine.



# International Patent Classification

Eighth Edition (2006)  
Core Level

Volume 1

Sections A and B



World Intellectual Property Organization

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This publication of the eighth edition (2006) constitutes the core level of the authentic English version of the Classification provided for in the Strasbourg Agreement Concerning the International Patent Classification (of 1971). The version of the Classification contained in this edition represents the result of the revision of the previous seventh edition and the reform of the Classification which was carried out, from 1999 to 2005, by the Committee of Experts set up under the said Agreement. The eighth edition (2006) entered into force on January 1, 2006.

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**SECTION A – HUMAN NECESSITIES****CONTENTS OF SECTION**

(References and notes omitted)

**Subsection: AGRICULTURE**

|            |  |          |
|------------|--|----------|
| <b>A01</b> | <b>AGRICULTURE; FORESTRY; ANIMAL HUSBANDRY; HUNTING; TRAPPING; FISHING</b> .....   | <b>8</b> |
| A01B       | Soil working in agriculture or forestry; Parts, details, or accessories of agricultural machines or implements, in general .....   | 8        |
| A01C       | Planting; Sowing; Fertilising.....   | 9        |
| A01D       | Harvesting; Mowing .....   | 10       |
| A01F       | Threshing; Baling of straw, hay or the like; Stationary apparatus or hand tools for forming or binding straw or hay into bundles; Cutting of hay, straw or the like; Storing agricultural or horticultural produce ..... | 12       |
| A01G       | Horticulture; Cultivation of vegetables, flowers, rice, fruit, vines, hops, or seaweed; Forestry; Watering.....  | 12       |
| A01H       | New plants or processes for obtaining them; Plant reproduction by tissue culture techniques .....  | 13       |
| A01J       | Manufacture of dairy products .....  | 14       |
| A01K       | Animal husbandry; Care of birds, fishes, insects; Fishing; Rearing or breeding animals, not otherwise provided for; New breeds of animals .....  | 15       |
| A01L       | Shoeing of animals.....  | 17       |
| A01M       | Catching, trapping or scaring of animals; Apparatus for the destruction of noxious animals or noxious plants .....   | 17       |
| A01N       | Preservation of bodies of humans or animals or plants or parts thereof; Biocides, e.g. as disinfectants, as pesticides, as herbicides; Pest repellants or attractants; Plant growth regulators .....                     | 18       |
| A01P       | Biocidal, pest repellent, pest attractant or plant growth regulatory activity of chemical compounds or preparations .....  | 21       |

**Subsection: FOODSTUFFS; TOBACCO**

|            |  |           |
|------------|--|-----------|
| <b>A21</b> | <b>BAKING; EQUIPMENT FOR MAKING OR PROCESSING DOUGHS; DOUGHS FOR BAKING</b> .....  | <b>22</b> |
| A21B       | Bakers' ovens; Machines or equipment for baking .....  | 22        |
| A21C       | Machines or equipment for making or processing doughs; Handling baked articles made from dough .....   | 22        |
| A21D       | Treatment, e.g. preservation, of flour or dough for baking, e.g. by addition of materials; Baking; Bakery products; Preservation thereof ..... | 22        |

|            |   |           |
|------------|---|-----------|
| <b>A22</b> | <b>BUTCHERING; MEAT TREATMENT; PROCESSING POULTRY OR FISH</b> .....   | <b>24</b> |
| A22B       | Slaughtering.....   | 24        |
| A22C       | Processing meat, poultry, or fish .....   | 24        |
| <b>A23</b> | <b>FOODS OR FOODSTUFFS; THEIR TREATMENT, NOT COVERED BY OTHER CLASSES</b> .....   | <b>25</b> |
| A23B       | Preserving, e.g. by canning, meat, fish, eggs, fruit, vegetables, edible seeds; Chemical ripening of fruit or vegetables; The preserved, ripened, or canned products .....  | 25        |
| A23C       | Dairy products, e.g. milk, butter, cheese; Milk or cheese substitutes; Making thereof .....   | 25        |
| A23D       | Edible oils or fats, e.g. margarines, shortenings, cooking oils.....  | 26        |
| A23F       | Coffee; Tea; Their substitutes; Manufacture, preparation, or infusion thereof.....  | 26        |
| A23G       | Cocoa; Cocoa products, e.g. chocolate; Substitutes for cocoa or cocoa products; Confectionery; Chewing gum; Ice-cream; Preparation thereof .....  | 26        |
| A23J       | Protein compositions for foodstuffs; Working-up proteins for foodstuffs; Phosphatide compositions for foodstuffs .....  | 27        |
| A23K       | Fodder.....   | 27        |
| A23L       | Foods, foodstuffs, or non-alcoholic beverages, not covered by subclasses A21D or A23B to A23J; Their preparation or treatment, e.g. cooking, modification of nutritive qualities, physical treatment; Preservation of foods or foodstuffs, in general ..... | 27        |
| A23N       | Machines or apparatus for treating harvested fruit, vegetables, or flower bulbs in bulk, not otherwise provided for; Peeling vegetables or fruit in bulk; Apparatus for preparing animal feeding-stuffs .....   | 29        |
| A23P       | Shaping or working of foodstuffs, not fully covered by a single other subclass .....  | 29        |

|            |   |           |
|------------|---|-----------|
| <b>A24</b> | <b>TOBACCO; CIGARS; CIGARETTES; SMOKERS' REQUISITES</b> .....   | <b>30</b> |
| A24B       | Manufacture or preparation of tobacco for smoking or chewing; Tobacco; Snuff.....   | 30        |
| A24C       | Machines for making cigars or cigarettes .....  | 30        |
| A24D       | Cigars; Cigarettes; Tobacco smoke filters; Mouthpieces for cigars or cigarettes; Manufacture of tobacco smoke filters or mouthpieces..... | 30        |
| A24F       | Smokers' requisites; Match boxes.....   | 30        |

**Subsection: PERSONAL OR DOMESTIC ARTICLES**

|            |  |           |
|------------|--|-----------|
| <b>A41</b> | <b>WEARING APPAREL</b> .....   | <b>32</b> |
| A41B       | Shirts; Underwear; Baby linen; Handkerchiefs .....   | 32        |
| A41C       | Corsets; Brassières .....  | 32        |
| A41D       | Outerwear; Protective garments; Accessories.....   | 32        |
| A41F       | Garment fastenings; Suspenders.....  | 33        |
| A41G       | Artificial flowers; Wigs; Masks; Feathers .....  | 33        |
| A41H       | Appliances or methods for making clothes, e.g. for dress-making, for tailoring, not otherwise provided for ..... | 34        |
| <b>A42</b> | <b>HEADWEAR</b> .....  | <b>35</b> |
| A42B       | Hats; Head coverings.....  | 35        |
| A42C       | Manufacturing or trimming hats or other head coverings .....   | 35        |
| <b>A43</b> | <b>FOOTWEAR</b> .....  | <b>36</b> |
| A43B       | Characteristic features of footwear; Parts of footwear.....  | 36        |
| A43C       | Fastenings or attachments for footwear; Laces in general.....  | 36        |
| A43D       | Machines, tools, equipment or methods for manufacturing or repairing footwear .....                              | 37        |
| <b>A44</b> | <b>HABERDASHERY; JEWELLERY</b> .....   | <b>39</b> |
| A44B       | Buttons, pins, buckles, slide fasteners, or the like .....   | 39        |
| A44C       | Jewellery; Bracelets; Other personal adornments; Coins .....   | 39        |
| <b>A45</b> | <b>HAND OR TRAVELLING ARTICLES</b> .....   | <b>40</b> |
| A45B       | Walking sticks; Umbrellas; Ladies' or like fans .....  | 40        |
| A45C       | Purses; Luggage; Hand carried bags.....  | 40        |
| A45D       | Hairdressing or shaving equipment; Manicuring or other cosmetic treatment.....                                   | 41        |
| A45F       | Travelling or camp equipment; Sacks or packs carried on the body .....   | 42        |
| <b>A46</b> | <b>BRUSHWARE</b> .....   | <b>43</b> |
| A46B       | Brushes.....   | 43        |
| A46D       | Manufacture of brushes .....   | 43        |

|            |  |           |
|------------|--|-----------|
| <b>A47</b> | <b>FURNITURE; DOMESTIC ARTICLES OR APPLIANCES; COFFEE MILLS; SPICE MILLS; SUCTION CLEANERS IN GENERAL</b> .....          | <b>44</b> |
| A47B       | Tables; Desks; Office furniture; Cabinets; Drawers; General details of furniture.....                                    | 44        |
| A47C       | Chairs; Sofas; Beds .....  | 46        |
| A47D       | Furniture specially adapted for children.....  | 47        |
| A47F       | Special furniture, fittings, or accessories for shops, storehouses, bars, restaurants, or the like; Paying counters..... | 47        |
| A47G       | Household or table equipment.....  | 48        |
| A47H       | Furnishings for windows or doors.....  | 49        |
| A47J       | Kitchen equipment; Coffee mills; Spice mills; Apparatus for making beverages.....  | 49        |
| A47K       | Sanitary equipment not otherwise provided for; Toilet accessories .....  | 50        |
| A47L       | Domestic washing or cleaning; Suction cleaners in general.....   | 51        |

**Subsection: HEALTH; AMUSEMENT**

|            |   |           |
|------------|---|-----------|
| <b>A61</b> | <b>MEDICAL OR VETERINARY SCIENCE; HYGIENE</b> .....   | <b>53</b> |
| A61B       | Diagnosis; Surgery; Identification.....   | 53        |
| A61C       | Dentistry; Oral or dental hygiene .....   | 56        |
| A61D       | Veterinary instruments, implements, tools, or methods.....  | 57        |
| A61F       | Filters implantable into blood vessels; Prostheses; Devices providing patency to, or preventing collapsing of, tubular structures of the body, e.g. stents; Orthopaedic, nursing or contraceptive devices; Fomentation; Treatment or protection of eyes or ears; Bandages, dressings or absorbent pads; First-aid kits..... | 57        |
| A61G       | Transport, personal conveyances, or accommodation specially adapted for patients or disabled persons; Operating tables or chairs; Chairs for dentistry; Funeral devices.....  | 59        |
| A61H       | Physical therapy apparatus, e.g. devices for locating or stimulating reflex points in the body; Artificial respiration; Massage; Bathing devices for special therapeutic or hygienic purposes or specific parts of the body .....   | 60        |
| A61J       | Containers specially adapted for medical or pharmaceutical purposes; Devices or methods specially adapted for bringing pharmaceutical products into particular physical or administering forms; Devices for administering food or medicines orally; Baby comforters; Devices for receiving spittle.....                     | 61        |
| A61K       | Preparations for medical, dental, or toilet purposes .....  | 62        |
| A61L       | Methods or apparatus for sterilising materials or objects in general; Disinfection, sterilisation, or deodorisation of air; Chemical aspects of bandages, dressings, absorbent pads, or surgical articles; Materials for bandages, dressings, absorbent pads, or surgical articles.....                                     | 69        |

|            |  |           |            |   |           |
|------------|--|-----------|------------|---|-----------|
| A61M       | Devices for introducing media into, or onto, the body; Devices for transducing body media or for taking media from the body; Devices for producing or ending sleep or stupor .....   | 71        | A63        | <b>SPORTS; GAMES; AMUSEMENTS.....</b>   | <b>79</b> |
| A61N       | Electrotherapy; Magnetotherapy; Radiation therapy; Ultrasound therapy .....  | 73        | A63B       | Apparatus for physical training, gymnastics, swimming, climbing, or fencing; Ball games; Training equipment.....      | 79        |
| A61P       | Therapeutic activity of chemical compounds or medicinal preparations .....   | 74        | A63C       | Skates; Skis; Roller skates; Design or layout of courts, rinks or the like .....                                      | 80        |
| A61Q       | Use of cosmetics or similar toilet preparations .....  | 75        | A63D       | Bowling-alleys; Bowling games; Boccia; Bowls; Bagatelle; Billiards .....  | 81        |
| <b>A62</b> | <b>LIFE-SAVING; FIRE-FIGHTING.....</b>   | <b>76</b> | A63E       | Card, board, or roulette games; Indoor games using small moving playing bodies; Games not otherwise provided for..... | 81        |
| A62B       | Devices, apparatus, or methods for life-saving .....   | 76        | A63F       | Merry-go-rounds; Swings; Rocking-horses; Chutes; Switchbacks; Similar devices for public amusement.....               | 82        |
| A62C       | Fire-fighting .....  | 77        | A63G       | Toys, e.g. tops, dolls, hoops, building blocks.....   | 83        |
| A62D       | Chemical means for extinguishing fires; Processes for making harmful chemical substances harmless, or less harmful, by effecting a chemical change; Composition of materials for coverings or clothing for protecting against harmful chemical agents; Composition of materials for transparent parts of gas-masks, respirators, breathing bags or helmets; Composition of chemical materials for use in breathing apparatus ..... | 78        | A63H       | Devices for theatres, circuses, or the like; Conjuring appliances or the like .....                                   | 83        |
|            |  |           | A63I       | Racing; Riding sports; Equipment or accessories therefor .....  | 84        |
|            |  |           | <b>A99</b> | <b>SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION .....</b>  | <b>85</b> |
|            |  |           | A99Z       | Subject matter not otherwise provided for in this section.....  | 85        |

**A23 FOODS OR FOODSTUFFS; THEIR TREATMENT, NOT COVERED BY OTHER CLASSES****Note**

- (1) Attention is drawn to the following places:  
 C08B Polysaccharides, derivatives thereof  
 C11 Animal or vegetable oils, fats, fatty substances or waxes  
 C12 Biochemistry, beer, spirits, wine, vinegar  
 C13 Sugar industry. [4]
- (2) Processes using enzymes or micro-organisms in order to:  
 (i) liberate, separate or purify a pre-existing compound or composition, or to  
 (ii) treat textiles or clean solid surfaces of materials  
 are further classified in subclass C12S. [5]

**A23B PRESERVING, e.g. BY CANNING, MEAT, FISH, EGGS, FRUIT, VEGETABLES, EDIBLE SEEDS; CHEMICAL RIPENING OF FRUIT OR VEGETABLES; THE PRESERVED, RIPENED, OR CANNED PRODUCTS** (preserving foodstuffs in general A23L 3/00; applying food preservatives in packages B65D 81/28)

|  |   |
|--|---|
| <p><b>4/00 General methods for preserving meat, sausages, fish or fish products [2]</b></p> <p>4/005 . Preserving by heating [5]<br/>           4/02 . Preserving by means of inorganic salts (apparatus therefor A23B 4/26, A23B 4/32) [2]<br/>           4/03 . Drying; Subsequent reconstitution [5]<br/>           4/044 . Smoking; Smoking devices [5]<br/>           4/06 . Freezing; Subsequent thawing; Cooling [2]<br/>           4/12 . Preserving with acids; Acid fermentation [2]<br/>           4/14 . Preserving with chemicals not covered by groups A23B 4/02 or A23B 4/12 [2]<br/>           4/26 . Apparatus for preserving using liquids [5]<br/>           4/32 . Apparatus for preserving using solids [5]</p> <p><b>5/00 Preservation of eggs or egg products</b> (preserving dough or bakery products A21D)<br/>           5/005 . Preserving by heating [5]</p> | <p><b>7/00 Preservation or chemical ripening of fruit or vegetables [3]</b></p> <p>7/005 . Preserving by heating [5]<br/>           7/02 . Dehydrating; Subsequent reconstitution (dried cooked potatoes A23L 1/214)<br/>           7/04 . Freezing; Subsequent thawing; Cooling<br/>           7/08 . Preserving with sugars (marmalade, jam, fruit jellies A23L 1/06)<br/>           7/10 . Preserving with acids; Acid fermentation<br/>           7/14 . Preserving or ripening with chemicals not covered by group A23B 7/08 or A23B 7/10<br/>           7/144 . . in the form of gases, e.g. fumigation; Compositions or apparatus therefor [3,5]</p> <p><b>9/00 Preservation of edible seeds, e.g. cereals</b></p> |
|--|---|

**A23C DAIRY PRODUCTS, e.g. MILK, BUTTER, CHEESE; MILK OR CHEESE SUBSTITUTES; MAKING THEREOF** (obtaining protein compositions for foodstuffs A23J 1/00; preparation of peptides, e.g. of proteins, in general C07K 1/00)

**Note**

This subclass covers:

- the chemical aspects of making dairy products; [3]
- the apparatus used for performing techniques provided for therein, e.g. for concentration, evaporation, drying, preservation, or sterilisation, unless such apparatus is specifically provided for in another subclass, e.g. A01J for treatment of milk or cream for manufacture of butter or cheese. [3]

**Subclass Index**

|                                  |                           |                                  |                     |
|----------------------------------|---------------------------|----------------------------------|---------------------|
| DAIRY TECHNOLOGY .....           | 1/00 to 7/00              | CHEESE; CHEESE SUBSTITUTES ..... | 19/00; 20/00        |
| MILK PREPARATIONS; MILK          |                           | BUTTERMILK; WHEY; OTHER DAIRY    |                     |
| SUBSTITUTES; CREAM; BUTTER ..... | 9/00; 11/00; 13/00; 15/00 | PRODUCTS .....                   | 17/00; 21/00; 23/00 |

**General dairy technology**

- |  |  |
|--|--|
| <p><b>1/00 Concentration, evaporation or drying</b> (A23C 3/00 takes precedence; products obtained thereby A23C 9/00; making butter powder A23C 15/00, cheese powder A23C 19/00; evaporating in general B01D 1/00) [3]</p> | <p><b>3/00 Preservation of milk or milk preparations</b> (of cream A23C 13/00; of butter A23C 15/00; of cheese A23C 19/00)</p> <p><b>7/00 Other dairy technology</b></p> |
|--|--|

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|---------------------------|----------------------------|-----------------------------|---------------------------|------------------------------|-------------------------------|----------------------|
| Level:<br><b>advanced</b> | Show indexes:<br><b>no</b> | Show deleted:<br><b>yes</b> | Show notes:<br><b>yes</b> | Show headings:<br><b>yes</b> | View mode:<br><b>fulltext</b> | Version:<br><b>8</b> |
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## **A SECTION A — HUMAN NECESSITIES**

### **FOODSTUFFS; TOBACCO**

#### **A23 FOODS OR FOODSTUFFS; THEIR TREATMENT, NOT COVERED BY OTHER CLASSES**

##### Note(s)

1. Attention is drawn to the following places:
  - C08B** Polysaccharides, derivatives thereof
  - C11** Animal or vegetable oils, fats, fatty substances or waxes
  - C12** Biochemistry, beer, spirits, wine, vinegar
  - C13** Sugar industry. [4]
2. Processes using enzymes or micro-organisms in order to:
  - i. liberate, separate or purify a pre-existing compound or composition, or to
  - ii. treat textiles or clean solid surfaces of **materials** are further classified in subclass **C12S**. [5]

#### **A23B PRESERVING, e.g. BY CANNING, MEAT, FISH, EGGS, FRUIT, VEGETABLES, EDIBLE SEEDS; CHEMICAL RIPENING OF FRUIT OR VEGETABLES; THE PRESERVED, RIPENED, OR CANNED PRODUCTS** (preserving foodstuffs in general **A23L 3/00**; applying food preservatives in packages **B65D 81/28**)

##### **A23B 4/00 General methods for preserving meat, sausages, fish or fish products** [2]

- A23B 4/005 . Preserving by heating [5]
- A23B 4/01 . . by irradiation or electric **treatment** [5]
- A23B 4/015 . Preserving by irradiation or electric **treatment** without heating effect [5]
- A23B 4/02 . Preserving by means of inorganic salts (**apparatus** therefor **A23B 4/26**, **A23B 4/32**) [2]
- A23B 4/023 . . by kitchen salt or mixtures thereof with inorganic or organic compounds [5]
- A23B 4/027 . . by inorganic salts other than kitchen salt or mixtures thereof with organic compounds, e.g. biochemical compounds [5]
- A23B 4/03 . Drying; Subsequent reconstitution [5]
- A23B 4/033 . . with addition of chemicals (**A23B 4/037** takes precedence) [5]
- A23B 4/037 . . Freeze-drying [5]
- A23B 4/044 . Smoking; Smoking devices [5]
- A23B 4/048 . . with addition of chemicals other than natural smoke [5]
- A23B 4/052 . . Smoke generators [5]
- A23B 4/056 . . Smoking combined with irradiation or electric **treatment**, e.g. electrostatic smoking [5]
- A23B 4/06 . Freezing; Subsequent thawing; Cooling [2]
- A23B 4/07 . . Thawing subsequent to freezing [5]
- A23B 4/08 . . with addition of chemicals before or during cooling [2]
- A23B 4/09 . . . with direct contact between the food and the chemical, e.g. liquid N<sub>2</sub>, at cryogenic temperature [5]
- A23B 4/10 . Coating with a protective layer; Compositions or **apparatus** therefor [2]
- A23B 4/12 . Preserving with acids; Acid fermentation [2]
- A23B 4/14 . Preserving with chemicals not covered by groups **A23B 4/02** or **A23B 4/12** [2]
- A23B 4/16 . . in the form of gases, e.g. fumigation; Compositions or **apparatus** therefor [5]

|                  |  |
|------------------|--|
| A23B 4/18        | • • in the form of liquids or solids ( <b>apparatus</b> therefor <a href="#">A23B 4/26</a> , <a href="#">A23B 4/32</a> ) [5] |
| A23B 4/20        | • • • Organic compounds; Micro-organisms; Enzymes (acid fermentation <a href="#">A23B 4/12</a> ) [5]                         |
| A23B 4/22        | • • • • Micro-organisms; Enzymes [5]   |
| A23B 4/24        | • • • Inorganic compounds [5]  |
| A23B 4/26        | • <b>Apparatus</b> for preserving using liquids [5]  |
| A23B 4/28        | • • by injection of liquids [5]  |
| A23B 4/30        | • • by spraying of liquids [5]   |
| A23B 4/32        | • <b>Apparatus</b> for preserving using solids [5]   |
| <b>A23B 5/00</b> | <b>Preservation of eggs or egg products</b> (preserving dough or bakery products <a href="#">A21D</a> )                      |
| A23B 5/005       | • Preserving by heating [5]  |
| A23B 5/01        | • • by irradiation or electric <b>treatment</b> [5]  |
| A23B 5/015       | • Preserving by irradiation or electric <b>treatment</b> without heating effect [5]  |
| A23B 5/02        | • Drying; Subsequent reconstitution [5]  |
| A23B 5/025       | • • with addition of chemicals ( <a href="#">A23B 5/03</a> , <a href="#">A23B 5/035</a> take precedence) [5]                 |
| A23B 5/03        | • • Freeze-drying [5]  |
| A23B 5/035       | • • Spray-drying [5]   |
| A23B 5/04        | • Freezing; Subsequent thawing; Cooling  |
| A23B 5/045       | • • Thawing subsequent to freezing [5]   |
| A23B 5/05        | • • with addition of chemicals [5]   |
| A23B 5/055       | • • • with direct contact between the food and the chemical, e.g. liquid N <sub>2</sub> , at cryogenic temperature [5]       |
| A23B 5/06        | • Coating eggs with a protective layer; Compositions or <b>apparatus</b> therefor [5]  |
| A23B 5/08        | • Preserving with chemicals [5]  |
| A23B 5/10        | • • in the form of gases, e.g. fumigation; Compositions or <b>apparatus</b> therefor [5]                                     |
| A23B 5/12        | • • in the form of liquids or solids [5]   |
| A23B 5/14        | • • • Organic compounds; Micro-organisms; Enzymes [5]  |
| A23B 5/16        | • • • • Micro-organisms; Enzymes [5]   |
| A23B 5/18        | • • • Inorganic compounds [5]  |
| A23B 5/20        | • • • <b>Apparatus</b> for preserving using liquids [5]  |
| A23B 5/22        | • • • <b>Apparatus</b> for preserving using solids [5]   |
| <b>A23B 7/00</b> | <b>Preservation or chemical ripening of fruit or vegetables</b> [3]  |
| A23B 7/005       | • Preserving by heating [5]  |
| A23B 7/01        | • • by irradiation or electric <b>treatment</b> [5]  |
| A23B 7/015       | • Preserving by irradiation or electric <b>treatment</b> without heating effect [5]  |
| A23B 7/02        | • Dehydrating; Subsequent reconstitution (dried cooked potatoes <a href="#">A23L 1/216</a> )                                 |
| A23B 7/022       | • • with addition of chemicals ( <a href="#">A23B 7/024</a> - <a href="#">A23B 7/028</a> take precedence) [5]                |
| A23B 7/024       | • • Freeze-drying [5]  |
| A23B 7/026       | • • Spray-drying [5]   |
| A23B 7/028       | • • Thin layer-, drum- or roller-drying [5]  |
| A23B 7/03        | • • Drying raw potatoes  |
| A23B 7/04        | • Freezing; Subsequent thawing; Cooling  |
| A23B 7/045       | • • Thawing subsequent to freezing [5]   |
| A23B 7/05        | • • with addition of chemicals [5]   |
| A23B 7/055       | • • • with direct contact between the food and the chemical, e.g. liquid N <sub>2</sub> , at cryogenic temperature [5]       |
| A23B 7/06        | • Blanching (machines therefor <a href="#">A23N 12/00</a> ) [3]  |
| A23B 7/08        | • Preserving with sugars (marmalade, jam, fruit jellies <a href="#">A23L 1/06</a> )  |
| A23B 7/10        | • Preserving with acids; Acid fermentation   |
| A23B 7/12        | • • <b>Apparatus</b> for compressing sauerkraut  |
| A23B 7/14        | • Preserving or ripening with chemicals not covered by group <a href="#">A23B 7/08</a> or <a href="#">A23B 7/10</a>          |
| A23B 7/144       | • • in the form of gases, e.g. fumigation; Compositions or <b>apparatus</b> therefor [3,5]                                   |
| A23B 7/148       | • • • in a controlled atmosphere, e.g. partial vacuum, comprising only CO <sub>2</sub> , N <sub>2</sub> , O <sub>2</sub>     |



|            |  |
|------------|--|
| A23B 7/152 | <ul style="list-style-type: none"> <li>or H<sub>2</sub>O [3]</li> <li>. . . in a controlled atmosphere comprising other gases in addition to CO<sub>2</sub>, N<sub>2</sub>, O<sub>2</sub> or H<sub>2</sub>O [3]</li> </ul> |
| A23B 7/153 | <ul style="list-style-type: none"> <li>. . . in the form of liquids or solids [5]</li> </ul>   |
| A23B 7/154 | <ul style="list-style-type: none"> <li>. . . Organic compounds; Micro-organisms; Enzymes (acid fermentation <b>A23B 7/10</b>) [5]</li> </ul>   |
| A23B 7/155 | <ul style="list-style-type: none"> <li>. . . . Micro-organisms; Enzymes [5]</li> </ul>   |
| A23B 7/157 | <ul style="list-style-type: none"> <li>. . . Inorganic compounds [5]</li> </ul>  |
| A23B 7/158 | <ul style="list-style-type: none"> <li>. . . <b>Apparatus</b> for preserving using liquids [5]</li> </ul>  |
| A23B 7/159 | <ul style="list-style-type: none"> <li>. . . <b>Apparatus</b> for preserving using solids [5]</li> </ul>   |
| A23B 7/16  | <ul style="list-style-type: none"> <li>. Coating with a protective layer; Compositions or <b>apparatus</b> therefor (<b>A23B 7/08</b> takes precedence) [5]</li> </ul>   |

#### **A23B 9/00 Preservation of edible seeds, e.g. cereals**

|           |   |
|-----------|---|
| A23B 9/02 | <ul style="list-style-type: none"> <li>. Preserving by heating [5]</li> </ul>   |
| A23B 9/04 | <ul style="list-style-type: none"> <li>. . by irradiation or electric <b>treatment</b> [5]</li> </ul>   |
| A23B 9/06 | <ul style="list-style-type: none"> <li>. Preserving by irradiation or electric <b>treatment</b> without heating effect [5]</li> </ul>   |
| A23B 9/08 | <ul style="list-style-type: none"> <li>. Drying; Subsequent reconstitution [5]</li> </ul>   |
| A23B 9/10 | <ul style="list-style-type: none"> <li>. Freezing; Subsequent thawing; Cooling [5]</li> </ul>   |
| A23B 9/12 | <ul style="list-style-type: none"> <li>. . Thawing subsequent to freezing [5]</li> </ul>  |
| A23B 9/14 | <ul style="list-style-type: none"> <li>. Coating with a protective layer; Compositions or <b>apparatus</b> therefor [5]</li> </ul>  |
| A23B 9/16 | <ul style="list-style-type: none"> <li>. Preserving with chemicals [5]</li> </ul>   |
| A23B 9/18 | <ul style="list-style-type: none"> <li>. . in the form of gases, e.g. fumigation; Compositions or <b>apparatus</b> therefor [5]</li> </ul>  |
| A23B 9/20 | <ul style="list-style-type: none"> <li>. . . in a controlled atmosphere, e.g. partial vacuum, comprising only CO<sub>2</sub>, N<sub>2</sub>, O<sub>2</sub> or H<sub>2</sub>O [5]</li> </ul> |
| A23B 9/22 | <ul style="list-style-type: none"> <li>. . . in a controlled atmosphere comprising other gases in addition to CO<sub>2</sub>, N<sub>2</sub>, O<sub>2</sub> or H<sub>2</sub>O [5]</li> </ul> |
| A23B 9/24 | <ul style="list-style-type: none"> <li>. . . in the form of liquids or solids [5]</li> </ul>  |
| A23B 9/26 | <ul style="list-style-type: none"> <li>. . . Organic compounds; Micro-organisms; Enzymes [5]</li> </ul>   |
| A23B 9/28 | <ul style="list-style-type: none"> <li>. . . . Micro-organisms; Enzymes [5]</li> </ul>  |
| A23B 9/30 | <ul style="list-style-type: none"> <li>. . . Inorganic compounds [5]</li> </ul>   |
| A23B 9/32 | <ul style="list-style-type: none"> <li>. . . <b>Apparatus</b> for preserving using liquids [5]</li> </ul>   |
| A23B 9/34 | <ul style="list-style-type: none"> <li>. . . <b>Apparatus</b> for preserving using solids [5]</li> </ul>  |

| <b>FILTER(S), filtering</b>                                 |      |                      |          | <b>FIRE(S)</b>   |              |               |
|---|------|----------------------|----------|--|--------------|---------------|
| photographic —  | G03C | 1/00<br>3/00<br>7/00 |          | <b>FINGERBOARDS</b>  |              |               |
| production of — from ion-exchange resins                    | C08J | 5/20                 |          | — for stringed instruments                                       | G10D         | 3/00 (3/06)   |
| storing — on cores or reels                                 | B65H | 75/00                |          | <b>FINGERPRINT(S)</b>  |              |               |
| thick — resistors   | H01C | 17/06                | (17/065) | recognising —  | A61B<br>G06K | 5/117<br>9/00 |
| thin — resistors  | H01C | 17/075               |          | <b>FINIALS</b>   |              |               |
| thin magnetic —   | H01F | 10/00                |          | (roof ridge tiles)   | E04D         | 1/30          |
| thin- or thick- — capacitors                                | H01G | 4/33                 |          | <b>FINING</b>  |              |               |
| <b>FILTER(S), filtering</b>                                 |      |                      |          | — of non-alcoholic beverages                                     | A23L         | 2/70          |
| <u>(1) for separating solids</u>                            | B01D |                      |          | <b>FINISHING</b>   |              |               |
| arrangement or mounting of air conditioner —                | F24F | 13/00                | (13/28)  | barrel- —  | B24B         | 31/00         |
| drum —  | B01D | 33/00                |          | — of bores or cylinders by rolling                               | B21H         | 1/00 (1/18)   |
| — for breathing-protection purposes                         | A62B | 23/00                |          | — of chains or chain links                                       | B21L         | 9/00 (9/06)   |
| — for coffee  | A47J | 31/00                |          |  |              |               |
| — for milk  | A01J | 9/00                 | (9/02)   | — of fibres, threads, yarns or fabrics                           | D06M         |               |
|   |      | 11/00                | (11/06)  | by chemical, biochemical or physical means                       |              |               |
| — for non-alcoholic beverages                               | A23L | 2/70                 | (2/72)   | — of gear teeth  | B23F         | 19/00         |
| — for suction cleaners                                      | A47L | 9/10                 |          | — of headwear  | A42C         | 1/00 (1/08)   |
| — implantable into blood vessels                            | A61F | 2/01                 |          | — of leather   | C14B         |               |
| — in air conditioning                                       | F24F | 3/16                 |          |  | C14C         | 11/00         |
| — in cigar or cigarette holders                             | A24F | 13/00                | (13/06)  | — of metal surfaces mechanically                                 | B23P         | 9/00          |
| — in fluid meters   | G01F | 15/00                | (15/12)  | — of metal tubes   | B21C         | 37/06 (37/30) |
| — in mouthpieces of tobacco pipes                           | A24F | 7/00                 | (7/04)   | see also catchwords for the finishing operations per se          |              |               |
| — in washing machines                                       | D06F | 39/00                |          | — of metal tubes by rolling                                      | B21B         | 19/00 (19/10) |
| — paper   | D21H | 27/08                |          | — or dressing of filaments, yarns, threads, cords or ropes       | D02J         |               |
| — presses   | B01D | 25/12                |          | — of photographs   | G03C         | 11/00         |
| — spinning solution or melt                                 | D01D | 1/00                 | (1/10)   | — of print or printed paper                                      | B41F         | 23/00 (23/08) |
| — tips for cigars or cigarettes                             | A24D | 3/00                 |          |  | B41L         | 11/00         |
| making — paper  | D21F | 11/00                | (11/14)  | — of screw threads   | B23G         | 23/00 (23/24) |
| regenerating — material                                     | B01D | 41/00                |          | — of surfaces by grinding or polishing                           | B24B         | 7/00          |
| ultra —   | B01D | 61/14                |          | — of textile fabrics   | D06C         |               |
| using — aids  | B01D | 37/00                | (37/02)  | tools for building structure —                                   | E04F         | 21/00         |
| well —  | E03B | 3/00                 | (3/18)   | <b>FIRE(S)</b>   |              |               |
| <u>(2) acoustic —</u>                                       | G10K | 11/00                | (11/04)  | <u>(1) fireplaces and equipment</u>                              |              |               |
| <u>(3) — for electro-magnetic waves:</u>                    |      |                      |          | <u>therefor:</u>   |              |               |
| — networks  | H03H |                      |          | domestic open —  | F24B         | 1/00 (1/18)   |
| — of waveguide type   | H01P | 1/20                 |          | — bars for grates of combustion apparatus                        | F23H         |               |
| <u>(4) optical —</u>  | G02B | 5/20                 |          | — bridges  | F23M         |               |
| fastening — to lighting devices                             | F21V | 17/00                |          | — irons  | F24B         | 15/00         |
| — associated with lighting devices                          | F21V | 9/00                 |          | — lighters   | C10L         | 11/00         |
|   |      | 13/00                |          | <u>(2) preventing undesired — and minimising effects thereof</u> |              |               |
| — for photographic purposes                                 | G03B | 11/00                |          | extinguishing or preventing — in boreholes                       | E21B         | 35/00         |
| — for spectacles  | G02C | 7/00                 | (7/10)   | — alarms   | G08B         | 17/00         |
| — in electric incandescent lamps                            | H01K | 1/00                 | (1/26)   | — escape ladders not permanently fixed to buildings              | E06C         | 1/00 to 7/00  |
| — layers in photosensitive materials                        | G03C | 1/815<br>1/825       |          | — escape ladders permanently fixed to buildings                  | E06C         | 9/00          |
| <u>(5) — for X-rays</u>                                     | G21K | 3/00                 |          | — escapes  | A62B         | 1/00 to 5/00  |
| <b>FINANCE</b>  |      |                      |          | — extinguishing apparatus adapted for or arranged in vehicles    | A62C         | 3/07          |
| Data processing systems or methods, specially adapted for — | G06Q | 40/00                |          | — fighting   | A62C         |               |
| <b>FINGER(S)</b>  |      |                      |          |  |              |               |
| apparatus for exercising —                                  | A63B | 23/035               | (23/16)  |  |              |               |
| artificial — nails  | A45D | 31/00                |          |  |              |               |
| — glasses or bowls  | A47G | 19/00                | (19/12)  |  |              |               |
| — guards for doors  | E06B | 7/00                 |          |  |              |               |
| — mirrors   | A45D | 42/00                | (42/06)  |  |              |               |
| — plates for doors  | E06B | 7/00                 | (7/28)   |  |              |               |
| — protectors for knitting                                   | D04B | 3/00                 | (3/04)   |  |              |               |
| — rings   | A44C | 9/00                 |          |  |              |               |
| orthopaedic appliances for —                                | A61F | 5/01                 | (5/10)   |  |              |               |

## Concordance List 20000101 to 20060101

| Version 7 [2000.01] | Version 8 [2006.01]   |
|---------------------|---|
| <b>A61K</b>         |   |
| <b>A61K 7/00</b>    | <b>A61K 8/00 - 8/99, A61Q 7/00 - 9/00, A61Q 11/00 - 11/02, A61Q 19/00 - 19/08</b> |
| A61K 7/02           | <b>A61K 8/00 - 8/99, A61Q 1/00</b>  |
| A61K 7/021          | <b>A61K 8/00 - 8/99, A61Q 1/02</b>  |
| A61K 7/025          | <b>A61K 8/00 - 8/99, A61Q 1/04</b>  |
| A61K 7/027          | <b>A61K 8/00 - 8/99, A61Q 1/06</b>  |
| A61K 7/031          | <b>A61K 8/00 - 8/99, A61Q 1/08</b>  |
| A61K 7/032          | <b>A61K 8/00 - 8/99, A61Q 1/10</b>  |
| A61K 7/035          | <b>A61K 8/00 - 8/99, A61Q 1/12 - 1/14</b>   |
| A61K 7/04           | <b>A61K 8/00 - 8/99, A61Q 3/00</b>  |
| A61K 7/043          | <b>A61K 8/00 - 8/99, A61Q 3/02</b>  |
| A61K 7/047          | <b>A61K 8/00 - 8/99, A61Q 3/04</b>  |
| A61K 7/06 - 7/07    | <b>A61K 8/00 - 8/99, A61Q 5/00 - 9/04</b>   |
| A61K 7/075          | <b>A61K 8/00 - 8/99, A61Q 5/12</b>  |
| A61K 7/08           | <b>A61K 8/00 - 8/99, A61Q 5/02</b>  |
| A61K 7/09           | <b>A61K 8/00 - 8/99, A61Q 5/04</b>  |
| A61K 7/11           | <b>A61K 8/00 - 8/99, A61Q 5/06</b>  |
| A61K 7/13           | <b>A61K 8/00 - 8/99, A61Q 5/10</b>  |
| A61K 7/135          | <b>A61K 8/00 - 8/99, A61Q 5/08</b>  |
| A61K 7/15           | <b>A61K 8/00 - 8/99, A61Q 9/02</b>  |
| A61K 7/155          | <b>A61K 8/00 - 8/99, A61Q 9/04</b>  |
| A61K 7/16           | <b>A61K 8/00 - 8/99, A61Q 11/00</b>   |
| A61K 7/18           | <b>A61K 8/00 - 8/89, A61K 8/90 - 8/99, A61Q 11/00</b>                             |
| A61K 7/20           | <b>A61K 8/00 - 8/99, A61Q 11/00</b>   |
| A61K 7/22 - 7/28    | <b>A61K 8/00 - 8/89, A61K 8/90 - 8/99, A61Q 11/00</b>                             |
| A61K 7/30           | <b>A61K 8/00 - 8/99, A61Q 11/02</b>   |
| A61K 7/32 - 7/38    | <b>A61K 8/00 - 8/99, A61Q 15/00</b>   |
| A61K 7/40           | <b>A61K 8/00 - 8/99, A61Q 17/00 - 17/02</b>                                       |
| A61K 7/42 - 7/44    | <b>A61K 8/00 - 8/99, A61Q 17/04</b>   |
| A61K 7/46           | <b>A61K 8/00 - 8/99, A61Q 13/00</b>   |
| A61K 7/48           | <b>A61K 8/00 - 8/99, A61Q 19/00 - 19/08</b>                                       |
| A61K 7/50           | <b>A61K 8/30 - 8/99, A61Q 19/10</b>   |
| <b>A61K 35/00</b>   |   |
| A61K 35/70          | <b>A61K 36/06 - 36/062, A61K 36/07</b>  |
| A61K 35/72          | <b>A61K 36/06 - 36/064, A61K 36/07</b>  |
| A61K 35/78          | <b>A61K 36/00, A61K 36/10 - 36/9068</b>   |
| A61K 35/80          | <b>A61K 36/02 - 36/05</b>   |
| A61K 35/82          | <b>A61K 36/09</b>   |
| A61K 35/84          | <b>A61K 36/06 - 36/062, A61K 36/066 - 36/076</b>                                  |