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WORLD INTELLECTUAL PROPERTY ORGANIZATION
ORGANISATION MONDIALE DE LA PROPRIÉTÉ INTELLECTUELLE

GENEVA/GENÈVE

COMMITTEE OF EXPERTS OF THE IPC UNION
COMITÉ D'EXPERTS DE L'UNION DE L'IPC

IPC REFORM PROJECT FILE/DOSSIER DE PROJET DE RÉFORME DE LA CIB

SUBJECT: DETERMINATION OF THE MOST APPROPRIATE CONTENTS OF THE CORE LEVEL OF THE REFORMED IPC
SUJET : DÉTERMINATION DU CONTENU LE PLUS APPROPRIÉ DU NIVEAU DE BASE DE LA CIB APRÈS SA RÉFORME

ANNEX/ ANNEXE	CONTENT/CONTENU		SEE/VOIR R 14/00	ORIGIN/ ORIGINE	DATE
1	Discussion paper	Document de discussion		AP	17.12.99
2	Circular No. IPC 33	Circulaire n° IPC 33		IB	02.02.00
3	Summary of replies	Résumé des réponses		IB	10.03.00
4	Comments	Observations		FI	10.03.00
5	Comments	Observations		FR	--.03.00
6	Recommendations by the Trilateral Offices	Recommandations des offices de la coopération trilatérale		EP	14.03.00
7	Decision by IPC/CE/29 and follow-up	Décision de l'IPC/CE/29 et suite		IB	17.03.00
8	Background paper	Document d'information		IB	12.04.00
9	Proposal	Proposition	Rev.1	EP	10.04.00
10	Comments	Observations	Rev.2	FR	27.04.00
11	Decision by IPC/REF/3 and follow-up	Décision de l'IPC/REF/3 et suite	Rev.3	IB	05.05.00
12	Explanatory paper	Document explicatif	Rev.3	EP	28.08.00
13	IPC core level (data from ECLA)	Niveau de base de la CIB (données d'ECLA)	Rev.3	EP	28.08.00
14	IPC core level (data from IPC)	Niveau de base de la CIB (données de la CIB)	Rev.3	EP	28.08.00
15	Statistics	Statistiques	Rev.3	EP	28.08.00

ANNEX/ ANNEXE	**CONTENT/CONTENU**		**SEE/VOIR R** 14/00	**ORIGIN/ ORIGINE**	**DATE**
16	Comments	Observations	Rev.3	SE	29.09.00
17	Comments	Observations	Rev.4	FR	26.10.00
18	Excerpt of document IPC/CE/30/11	Extrait du document IPC/CE/30/11	Rev.5	IB	23.02.01
19	Study	Étude	Rev.5	US	13.03.01

ANNEX 18/ANNEXE 18

EXCERPT FROM DOCUMENT IPC/CE/30/11, PARAGRAPHS 19 TO 26

DETERMINATION OF THE MOST APPROPRIATE CONTENTS OF THE CORE LEVEL OF THE IPC

19. Discussions were based on document IPC/CE/30/5 containing the results of the study conducted by the EPO, which was based on an automated procedure using file size of IPC groups as a main parameter for distribution of groups between the core and advanced levels. The Committee considered also the results of a survey carried out by the International Bureau with regard to the intentions of industrial property offices to use the core or advanced level for classification of their published patent documents (see document IPC/CE/30/5 Suppl.1) and the comments on the study by the EPO submitted by Japan, Sweden, the United Kingdom and the EPO (see document IPC/CE/30/5 Suppl.2).

20. The Delegation of the EPO explained the algorithm used in the study specifying quantitative parameters relating to a minimum and a maximum size of IPC groups. The Delegation indicated that the algorithm used did note take into account the existence of precedence rules in local areas of the IPC and that the results of distribution of IPC groups between the core and advanced levels for the whole IPC were available on compact disk.

21. The Committee noted that the most appropriate size of the core level should be determined by two factors which could be considered as conflicting, namely, its relative stability and its sufficient searching power for the retrieval of information from national patent collections.

22. Having agreed that an ideal file size of the groups of the core level should be in the range of 100 to 150 documents per group and having estimated a potential largest volume of national patent collections, the Committee came to the conclusion that the use of the parameter of the maximum file size of 5,000 documents in the EPO study would lead to obtaining the core level with sufficient stability and sufficient searching power with respect to national patent collections. The Committee noted that the use of that parameter would result in the overall inclusion in the core level of approximately 30% of IPC groups currently present in the IPC.

23. The Committee indicated that the distribution of IPC groups between the core and advanced levels of the IPC should be further specified by collecting the data relating to file size of IPC groups introduced in the seventh edition of the IPC and IPC groups created during the current revision period. The Committee requested the EPO to collect this information using the data which was already available or would be available from ECLA, with a view to obtaining a final distribution of IPC groups between the core and advanced level in the year 2003.

24. The Committee realized that division of the IPC into the core and advanced levels would require additional work relating to checking references, notes, and other explanatory material in the IPC and instructed the IPC Revision Working Group to start this work as soon as possible in respect of IPC groups which did not belong to the set of groups introduced in the seventh edition of the IPC or created for the new edition. In order to estimate the possibility of using automated methods in carrying out the work, the Committee accepted an offer by the Delegation of the United States of America to make a study in several IPC subclasses on how division of the IPC influenced existing references and notes and to submit the results of the study to the ad hoc IPC Reform Working Group by the middle of April 2001.

25. Finally, the Committee expressed its confidence that the decision taken with regard to the size of the core level would result in the most appropriate distribution of IPC groups between the core and advanced levels and would satisfy the needs of both users searching international patent collections and users searching only smaller national collections.

26. The Committee indicated that the revision of the IPC should continue to be made in the framework of the Strasbourg Agreement. The Committee agreed that division of the IPC into the core level, which would be mandatory for the classification of patent documents, and the advanced level, which could be chosen for using its entries for classifying, did not formally contradict the Strasbourg Agreement and that existence of IPC entries non-obligatory for use was also allowed in the IPC in the past.

EXTRAIT DU DOCUMENT IPC/CE/30/11, PARAGRAPHES 19 À 26

DÉTERMINATION DU CONTENU LE PLUS APPROPRIÉ DU NIVEAU DE BASE DE LA CIB

19. Les délibérations ont eu lieu sur la base du document IPC/CE/30/5, contenant les résultats de l'étude de l'OEB fondée sur une procédure automatisée utilisant la taille du dossier des groupes de la CIB comme principal paramètre pour la répartition des groupes entre le niveau de base et le niveau plus élevé. Le comité a également examiné les résultats d'une enquête réalisée par le Bureau international sur les intentions des offices de propriété industrielle concernant l'utilisation du niveau de base et du niveau plus élevé pour le classement de leurs documents de brevet publiés (voir le document IPC/CE/30/5 Suppl.1), ainsi que les observations sur l'étude de l'OEB présentées par le Japon, le Royaume-Uni, la Suède et l'OEB (voir le document IPC/CE/30/5 Suppl.2).

20. La délégation de l'OEB a expliqué l'algorithme utilisé dans l'étude pour définir les paramètres quantitatifs relatifs à la taille minimale et maximale des groupes de la CIB. Elle a précisé que cet algorithme ne tient pas compte de l'existence de règles de priorité dans certains secteurs de la CIB et que les résultats de la répartition des groupes entre le niveau de base et le niveau plus élevé pour l'ensemble de la classification sont disponibles sur disque compact.

21. Le comité a observé que la taille la plus appropriée du niveau de base doit être déterminée par deux facteurs pouvant être considérés comme contradictoires, à savoir une stabilité suffisante et la nécessité d'une puissance de recherche suffisante pour l'extraction d'informations dans les collections de documents de brevet nationales.

22. Ayant convenu que la taille idéale des groupes du niveau de base devrait s'établir entre 100 et 150 documents et ayant évalué le volume maximal potentiel des collections de documents de brevet nationales, le comité a conclu que l'utilisation du paramètre de taille maximale du dossier fixé à 5000 documents dans l'étude de l'OEB permet d'assurer pour le niveau de base une stabilité satisfaisante et une puissance de recherche dans les collections nationales suffisante. Il a constaté que l'application de ce paramètre se traduirait au total par l'inclusion dans le niveau de base d'environ 30% des groupes qui figurent actuellement dans la CIB.

23. Le comité a indiqué qu'il convient de préciser la répartition des groupes de la CIB entre le niveau de base et le niveau plus élevé en rassemblant les données relatives à la taille des dossiers des groupes introduits dans la septième édition de la classification et des groupes créés durant la période de révision en cours. Le comité a prié l'OEB de recueillir ces renseignements à l'aide des données de l'ECLA qui sont déjà disponibles ou qui le seront bientôt, afin d'obtenir une répartition définitive des groupes de la CIB entre le niveau de base et le niveau plus élevé en 2003.

24. Le comité a estimé que la division de la CIB en un niveau de base et en un niveau plus élevé entraînera un surcroît de travail s'agissant de vérifier les renvois, notes et autres éléments explicatifs et a chargé le Groupe de travail sur la révision de la CIB de s'atteler à cette tâche dans les meilleurs délais pour ce qui concerne les groupes autres que ceux qui ont été introduits dans la septième édition de la CIB ou créés en vue de la prochaine édition. Afin d'évaluer la possibilité d'utiliser des méthodes automatisées pour réaliser ce travail, le comité a accepté l'offre de la délégation des États-Unis d'Amérique, qui se propose de réaliser dans plusieurs sous-classes de la CIB une étude sur les incidences de la division de la CIB sur les renvois et les notes existants et de soumettre les résultats au Groupe de travail ad hoc sur la réforme de la CIB pour la mi-avril 2001.

25. Enfin, le comité s'est déclaré confiant que la décision prise au sujet de la taille du niveau de base assurera la répartition la plus appropriée des groupes de la CIB entre le niveau de base et le niveau plus élevé et répondra à la fois aux besoins des utilisateurs qui effectuent des recherches dans les collections de documents de brevets internationales et de ceux qui font des recherches dans des collections nationales moins volumineuses.

26. Le comité a indiqué que la révision de la CIB doit continuer à s'inscrire dans le cadre de l'Arrangement de Strasbourg. Il a convenu que la division de la CIB entre le niveau de base, qui doit être obligatoire pour le classement des documents de brevets, et le niveau plus élevé, dont les entrées peuvent être utilisées à des fins de classement, n'est pas foncièrement incompatible avec l'Arrangement de Strasbourg et que l'existence d'entrées d'utilisation facultative a déjà été autorisée dans la CIB par le passé.

[Annex 19 follows/
L'annexe 19 suit]

ANNEX 19/ANNEXE 19

DETERMINING FEASIBILITY OF AUTOMATIED REFERENCE TRANSFER FROM CLASSIFICATIONS IN ADVANCED LEVEL TO CORE LEVEL COUNTERPARTS (see IPC/CE 30/11 Prov., paragraph 24)

Sample Subclass Information:

- The sample subclasses involved in this test were randomly selected from different books of the IPC manual. However, USPTO did make sure they all included references that would need relocated, modified, or canceled when moved from the advanced level to the core level of the Reformed IPC.

- For the purposes of this test, USPTO has assumed that only main groups would remain in the core level of the Reformed IPC. This was done so that the maximum number of potential references would be involved.

- A portion of each subclass' scheme involved in this feasibility study is included in attached Annexes I-V. In these Annexes, only the portion of the subclass scheme showing indirectly impacted groups or groups with references are included.

- Within the schemes included in the Annexes, in situations where a reference does not use the complete title of the area referred to, the complete title of the referred to classification has been included within brackets for comparison after the reference.

Conclusions from USPTO Review of References in Sampling:

1. The wording for many references will need to be made more complete when moved to a core classification.

[See A62B 1/06 reference, B62B 5/06 references (This reference is to only the example 'handle bars' in the title and not to the subject matter proper for the entire title!), C23C 26/02 reference, and H04Q (1/06, 1/30 & 3/78 references).]

2. The wording for many references must be changed to be correct in their new core location.

[See A62B 9/06 reference, A62B 18/08 reference to A61F 9/02 & A62D 7/00, and F23C (6/04 & 7/02 references).]

3. All precedence references between dependent groups under a common main group should be automatically deleted.

[See B62B (3/02, 3/08, & 3/12), C23C (2/02, 2/30, 2/32, 2/34, 8/02, 8/06, 10/02, 14/02, 14/06, 14/08, 14/28, 14/32, 14/36, 14/42, 14/46, 16/02, 16/44, 16/453, 16/46, 18/04, 18/16, 18/50, & 24/08), F23C (5/14 & 10/22), and H04Q (1/32, 1/44, 1/446, 1/45 & 5/02).]

4. While not technically incorrect, many references are now out of their original context and seem inappropriately worded.

[See A62B 1/16 references, B62B 9/10 references, and F23C 7/06 reference.]

5. All limiting and informative references between dependent groups under a common main group should be automatically deleted.

[See A62B 18/02 reference to A62B 18/06, B62B 9/24 reference to B62B 9/14, C23C 8/60 reference (not useful), and C23C 10/30 reference.]

6. All precedence references in dependent groups under one main group that refer to either another main group or one of its hierarchically dependent subgroups will cause major problems requiring extensive intellectual input. This category of precedence references must be narrowed in their new core level locations to be of an equivalent scope to their advanced level counterparts.

[See B62B 5/08 precedence reference to B62B 3/14.]

Summary

A large portion of the references in the part of the existing IPC classifications that will be transferred to the advanced level should automatically be deleted from (i.e., not added to) their corresponding core level classifications. These are the types of references found in sections 3 and 5 above.

The remaining portion of these references will require at least some level of intellectual review prior to being added to their corresponding core level classifications. These are the types of references found in sections 1, 2, 4, and 6 above.

ANNEX I

A 62 B DEVICES, APPARATUS, OR METHODS FOR LIFE-SAVING

1 / 00 **Devices for lowering persons from buildings or the like**

1 / 02 • by making use of rescue cages, bags, or the like (elevators, escalators or moving walkways B66B)

1 / 06 • by making use of rope-lowering devices (capstans, winches B66D) [*CAPSTANS; WINCHES; TACKLES, e.g. PULLEY BLOCKS; HOISTS*]

1 / 16 • • Life-saving ropes or belts (safety belts A62B 35/00; mountain guy-ropes A63B 29/02; life-saving belts for use at sea B63C) [*35/00,Safety belts or body harnesses; Similar equipment for limiting displacement of the human body, especially in case of sudden changes of motion][29/02, Mountain guy-ropes or accessories][B63C, LAUNCHING, HAULING-OUT, OR DRY-DOCKING OF VESSELS; LIFE-SAVING IN WATER; EQUIPMENT FOR DWELLING OR WORKING UNDER WATER; MEANS FOR SALVAGING OR SEARCHING FOR UNDERWATER OBJECTS]*

9 / 00 **Component parts for respiratory or breathing apparatus** (A62B 19/00, A62B 21/00, A62B 23/00 take precedence) **[4]**

9 / 06 • Mouthpieces; Nose-clips (for medical purposes A61M 15/00) *[15/00, Inhalators]*

18 / 00 **Breathing masks or helmets, e.g. affording protection against chemical agents or for use at high altitudes** (A62B 17/00 takes precedence; anaesthetic masks A61M 16/06)

18 / 02 • Masks (gas-masks for animals A62B 18/06; masks for welders A61F 9/06) *[9/06, Masks, shields, or hoods for welders]*

18 / 06 • Gas masks for animals

18 / 08 • Component parts for gas-masks or gas-helmets, e.g. windows, straps, speech transmitters, signal-devices (eye-pieces for protective goggles A61F 9/02; composition of materials for the windows or other transparent parts A62D 7/00) [*9/02, Goggles] [7/00, Composition of materials for transparent parts of gas-masks, respirators, breathing bags, or helmets]*

ANNEX II

B62B HAND-PROPELLED VEHICLES, e.g. HAND CARTS, PERAMBULATORS; SLEDGES

3 / 00 **Hand carts having more than one axis carrying transport wheels; Steering devices therefor; Equipment therefor**

3 / 02 • involving parts being adjustable, collapsible, attachable, detachable, or convertible (B62B 3/14 takes precedence) **[6]**

3 / 06 • • for simply clearing the load from the ground, e.g. low-lift trucks (devices movable on wheels or the like for lifting or lowering bulky or heavy goods for loading or unloading purposes, e.g. fork-lift trucks, B66F 9/06)

3 / 08 • involving tiltably-mounted containers (B62B 3/14 takes precedence) **[6]**

3 / 12 • characterised by three-wheeled construction (B62B 3/14 takes precedence) **[6]**

3 / 14 • characterised by provisions for nesting or stacking, e.g. shopping trolleys **[6]**

5 / 00 **Accessories or details specially adapted for hand carts** (B62B 9/00 takes precedence; wheels, axles, or axle bearings for vehicles B60B; castors for vehicles, castors in general B60B 33/00)

5 / 02 • providing for travelling up or down a flight of stairs (chairs or multi-track cycles specially adapted for invalids A61G 5/00) *[A61G 5/00 Chairs or multi-track cycles specially adapted for invalids]*

5 / 06 • Hand moving equipment, e.g. handle bars (for cycles B62K 11/14, B62K 21/12) *[11/14 Handle-bar constructions, or arrangements of controls thereon, specially adapted thereto, 21/12 Handle-bars; Handle-bar stems]*

5 / 08 • Children's seats (B62B 3/14 takes precedence) **[6]**

7 / 00 **Carriages for children; Perambulators, e.g. dolls' perambulators**

7 / 06 • • collapsible or foldable

7 / 12 • • convertible, e.g. into children's furniture or toy (children's chairs convertible to push chairs A47D 1/06)

9 / 00 **Accessories or details specially adapted for children's carriages or perambulators** (providing for travelling on snow B62B 19/00)

9 / 10 • Perambulator bodies; Equipment therefor (collapsible or foldable B62B 7/06; convertible B62B 7/12)

9 / 14 • • Hoods; Weather screens; Cat nets

9 / 24 • Safety guards for children, e.g. harness (cat nets B62B 9/14; devices for use in guiding or supporting children, e.g. safety harness, A47D 13/08)

13 / 00 **Sledges with runners** (ice boats or sailing sledges B62B 15/00)

15 / 00 **Other sledges; Ice boats or sailing sledges**

17 / 00 **Accessories or details of sledges**

17 / 02 • Runners (attachable to, or replacing, vehicle wheels B62B 19/00)

19 / 00 **Runners for carrying wheeled vehicles to facilitate travel on ice or snow**

ANNEX III

C 23 C COATING METALLIC MATERIAL; COATING MATERIAL WITH METALLIC MATERIAL; SURFACE TREATMENT OF METALLIC MATERIAL BY DIFFUSION INTO THE SURFACE, BY CHEMICAL CONVERSION OR SUBSTITUTION; COATING BY VACUUM EVAPORATION, BY SPUTTERING, BY ION IMPLANTATION OR BY CHEMICAL VAPOUR DEPOSITION, IN GENERAL [4]

2 / 00 Hot-dipping or immersion processes for applying the coating material in the molten state without affecting the shape; Apparatus therefor [4]

2 / 02 • Pretreatment of the material to be coated, e.g. for coating on selected surface areas (C23C 2/30 takes precedence) **[4]**

2 / 14 • Removing excess of molten coatings; Controlling or regulating the coating thickness (controlling or regulating thickness in general G05D 5/02) **[4]**

2 / 22 • • by rubbing, e.g. using knives **[4]**

2 / 26 • After-treatment (C23C 2/14 takes precedence) **[4]**

2 / 30 • Fluxes or coverings on molten baths (C23C 2/22 takes precedence) **[4]**

2 / 32 • using vibratory energy applied to the bath or substrate (C23C 2/14 takes precedence) **[4]**

2 / 34 • characterised by the shape of the material to be treated (C23C 2/14 takes precedence) **[4]**

8 / 00 Solid state diffusion of only non-metal elements into metallic material surfaces (diffusion of silicon C23C 10/00)**; Chemical surface treatment of metallic material by reaction of the surface with a reactive gas, leaving reaction products of surface material in the coating, e.g. conversion coatings, passivation of metals** (C23C 14/00 takes precedence) **[4]**

8 / 02 • Pretreatment of the material to be coated (C23C 8/04 takes precedence) **[4]**

8 / 04 • Treatment of selected surface areas, e.g. using masks **[4]**

8 / 06 • using gases (C23C 8/36 takes precedence) **[4]**

8 / 36 • • using ionised gases, e.g. ionitriding (discharge tubes with provision for introducing objects or material to be exposed to the discharge H01J 37/00) **[4]**

8 / 60 • using solids, e.g. powders, pastes (using liquid suspensions of solids C23C 8/40) **[4]**

10 / 00 Solid state diffusion of only metal elements or silicon into metallic material surfaces [4]

10 / 02 • Pretreatment of the material to be coated (C23C 10/04 takes precedence) **[4]**

10 / 04 • Diffusion into selected surface areas, e.g. using masks **[4]**

10 / 18 • using liquids, e.g. salt baths, liquid suspensions **[4]**

10 / 30 • • using a layer of powder or paste on the surface (using liquid suspensions of solids C23C 10/18) **[4]**

14 / 00 Coating by vacuum evaporation, by sputtering or by ion implantation of the coating forming material (discharge tubes with provision for introducing objects or material to be exposed to the discharge H01J 37/00) **[4]**

14 / 02 • Pretreatment of the material to be coated (C23C 14/04 takes precedence) **[4]**

14 / 04 • Coating on selected surface areas, e.g. using masks **[4]**

14 / 06 • characterised by the coating material (C23C 14/04 takes precedence) **[4]**

14 / 08 • • Oxides (C23C 14/10 takes precedence) **[4]**

14 / 10 • • Glass or silica **[4]**

14 / 28 • • • by wave energy or particle radiation (C23C 14/32 to C23C 14/48 take

precedence) **[4]**

14 / 32 • • • by explosion; by evaporation and subsequent ionisation of the vapours (C23C 14/34 to C23C 14/48 take precedence) **[4]**
14 / 34 • • Sputtering **[4]**
14 / 35 • • • by application of a magnetic field, e.g. magnetron sputtering **[5]**
14 / 36 • • • Diode sputtering (C23C 14/35 takes precedence) **[4,5]**
14 / 40 • • • • with alternating current discharge, e.g. high-frequency discharge **[4]**
14 / 42 • • • Triode sputtering (C23C 14/35 takes precedence) **[4,5]**
14 / 44 • • • • by application of high frequencies and additional direct voltages **[4]**
14 / 46 • • • by ion beam produced by an external ion source (C23C 14/40 takes precedence) **[4]**

16 / 00 Chemical coating by decomposition of gaseous compounds, without leaving reaction products of surface material in the coating, i.e. chemical vapour deposition (CVD) processes (reactive sputtering or vacuum evaporation C23C 14/00) **[4]**

16 / 02 • Pretreatment of the material to be coated (C23C 16/04 takes precedence) **[4]**
16 / 04 • Coating on selected surface areas, e.g. using masks **[4]**
16 / 44 • characterised by the method of coating (C23C 16/04 takes precedence) **[4]**
16 / 453 • • *passing the reaction gases through burners or torches, e.g. atmospheric pressure CVD (C23C 16/513 takes precedence; for flame or plasma spraying of coating material in the molten state C23C 4/00)* **[7]**
16 / 46 • • characterised by the method used for heating the substrate (C23C 16/48, C23C 16/50 take precedence) **[4]**
16 / 48 • • by irradiation, e.g. photolysis, radiolysis, particle radiation **[4]**
16 / 513 • • • *using plasma jets* **[7]**
16 / 52 • • Controlling or regulating the coating process (controlling or regulating in general G05) **[4]**

18 / 00 Chemical coating by decomposition of either liquid compounds or solutions of the coating forming compounds, without leaving reaction products of surface material in the coating (chemical surface reaction C23C 8/00, C23C 22/00)**; Contact plating [4]**

18 / 02 • by thermal decomposition **[4]**
18 / 04 • • Pretreatment of the material to be coated (C23C 18/06 takes precedence) **[4]**
18 / 06 • • Coating on selected surface areas, e.g. using masks **[4]**
18 / 16 • by reduction or substitution, i.e. electroless plating (C23C 18/54 takes precedence) **[4]**
18 / 32 • • • Coating with one of iron, cobalt or nickel; Coating with mixtures of phosphorus or boron with one of these metals **[4,5]**
18 / 50 • • • with alloys based on iron, cobalt or nickel (C23C 18/32 takes precedence) **[4,5]**
18 / 54 • Contact plating, i.e. electroless electrochemical plating **[4]**

22 / 00 Chemical surface treatment of metallic material by reaction of the surface with a reactive liquid, leaving reaction products of surface material in the coating, e.g. conversion coatings, passivation of metals (wash primers C09D 5/12) **[4]**

22 / 77 • • Controlling or regulating of the coating process (controlling or regulating in general G05) **[4]**

24 / 00 **Coating starting from inorganic powder** (spraying of the coating material in molten state C23C 4/00; solid state diffusion C23C 8/00 to C23C 12/00; manufacture of composite layers, workpieces or articles by sintering metallic powder B22F 7/00; friction welding B23K 20/12) **[4]**

24 / 04 • • Impact or kinetic deposition of particles **[4]**

24 / 08 • by application of heat or pressure and heat (C23C 24/04 takes precedence) **[4]**

26 / 00 **Coating not provided for in groups C23C 2/00 to C23C 24/00 [4]**

26 / 02 • applying molten material to the substrate (applying melts to surfaces, in general B05) **[4]** [*B05 SPRAYING OR ATOMISING IN GENERAL; APPLYING LIQUIDS OR OTHER FLUENT MATERIALS TO SURFACES, IN GENERAL]*

ANNEX IV

F23C COMBUSTION APPARATUS USING FLUENT FUEL

5 / 00 ***Disposition of burners with respect to the combustion chamber or to one another; Mounting of burners in combustion apparatus*** *(F23C 1/00, F23C 10/00, F23C 11/04 take precedence)* **[1,7]**

5 / 14 • • to obtain a single flame of concentrated or substantially planar form, e.g. pencil or sheet flame (F23C 5/32 takes precedence) **[3]**

5 / 32 • • to obtain rotating flames, i.e. flames moving helically or spirally **[3]**

6 / 00 ***Combustion apparatus characterised by the combination of two or more combustion chambers*** *(F23C 10/00 takes precedence)* **[3,7]**

6 / 04 • in series connection (consuming smoke or fumes in separate combustion apparatus F23G 7/06) **[3]**

7 / 00 ***Air-supply arrangements*** *(F23C 10/00 takes precedence; in general F23L)* **[1,7]**

7 / 02 • Disposition of air supply not passing through burner (to obtain a cyclonic tapering flame when burning pulverulent fuel F23C 5/32)

7 / 06 • • for heating the incoming air (arrangements of regenerators or recuperators F23L 15/00) *[F23L AIR SUPPLY; DRAUGHT-INDUCING; SUPPLYING NON-COMBUSTIBLE LIQUID OR GAS & 15/00 Heating of air supplied for combustion]*

7 / 08 • • • indirectly by a secondary fluid other than the combustion products

10 / 00 ***Fluidised bed combustion apparatus*** **[7]**

10 / 22 • • *Fuel feeders specially adapted for fluidised bed combustion apparatus (F23C 10/26 takes precedence)* **[7]**

10 / 24 • • *Devices for removal of material from the bed (devices for controlling the level of the bed or the amount of material in the bed F23C 10/30)* **[7]**

10 / 26 • • • *combined with devices for partial reintroduction of material into the bed, e.g. after separation of agglomerated parts* **[7]**

10 / 30 • • • *for controlling the level of the bed or the amount of material in the bed* **[7]**

11 / 00 **Combustion apparatus using fluent fuel, not provided for in groups F23C 1/00 to F23C 10/00**

11 / 04 • Combustion apparatus for producing resonant combustion (for generating combustion products of high pressure or high velocity F23R) **[3]**

ANNEX V

H04Q SELECTING

1 / 00 **Details of selecting apparatus or arrangements** (details of selector switches H01H 63/00)

1 / 06 • • Cable ducts or mountings specially adapted for exchange installations (in general H02G) *[H02G INSTALLATION OF ELECTRIC CABLES OR LINES, OR OF COMBINED OPTICAL AND ELECTRIC CABLES OR LINES]*

1 / 30 • • Signalling arrangements; Manipulation of signalling currents (multiplex systems providing for calling or supervisory signals H04J 1/14, H04J 3/12; telephone substation equipment H04M 1/00) *[1/14 Arrangements providing for calling or supervisory signals & 3/1 Arrangements providing for calling or supervisory signals; 1/00 Substation equipment, e.g. for use by subscribers]*

1 / 32 • • • using trains of dc pulses (H04Q 1/39 takes precedence) **[3]**

1 / 39 • • • using coded pulse groups **[3]**

1 / 44 • • • using ac (H04Q 1/50 takes precedence) **[3]**

1 / 446 • • • • • using one signalling frequency (H04Q 1/46 takes precedence) **[3]**

1 / 45 • • • • • using multi-frequency signalling (H04Q 1/46 takes precedence) **[3]**

1 / 46 • • • • • comprising means for distinguishing between a signalling current of predetermined frequency and a complex current containing that frequency, e.g. speech current **[3]**

1 / 50 • • • Conversion between different kinds of signals

3 / 00 **Selecting arrangements** (H04Q 5/00 to H04Q 11/00 take precedence)

3 / 78 • Temporary storage of information of calling or called subscriber (intermediate storage means for telegraphic communication H04L 13/08) **[4]** *[H04 L TRANSMISSION OF DIGITAL INFORMATION, e.g. TELEGRAPHIC COMMUNICATION & 13/08 Intermediate storage means]*

5 / 00 **Selecting arrangements wherein two or more subscriber stations are connected by the same line to the exchange**

5 / 02 • with direct connection for all subscribers, i.e. party-line system (H04Q 5/24 takes precedence)

5 / 24 • for two-party-line systems

[End of Annex 19 and of document/
Fin de l'annexe 19 et du document]