

# Industrial Property

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loupe, Martinique and Reunion, and to the overseas territories of New Caledonia, French Polynesia, St. Pierre and Miquelon, Wallis and Futuna Islands and the French Southern and Antarctic Territories." (*Translation*)

Pursuant to the provisions of Article 9(3)(b), the Locarno Agreement will enter into force with respect to France on September 13, 1975.

Locarno Notification No. 17, of June 13, 1975.

### Strasbourg Agreement

#### Ratification

##### MONACO

The Government of Monaco deposited on June 10, 1975, its instrument of ratification of the Strasbourg Agreement Concerning the International Patent Classification of March 24, 1971.

Pursuant to the provisions of Article 13(1)(b), the Strasbourg Agreement will enter into force with respect to Monaco on June 13, 1976.

Strasbourg Notification No. 22, of June 13, 1975.

### Trademark Registration Treaty (TRT)

#### Accession

##### UPPER VOLTA

The Government of Upper Volta deposited on May 23, 1975, its instrument of accession to the Trademark Registration Treaty (TRT) adopted at Vienna on June 12, 1973.

A separate notification will be made of the date of the entry into force of the Treaty when the required number of ratifications or accessions is reached.

TRT Notification No. 4, of June 2, 1975.

### Vienna Agreement (Classification)

#### Ratification

##### FRANCE

The Government of France deposited on June 11, 1975, its instrument of ratification of the Vienna Agreement Establishing an International Classification of the Figurative Elements of Marks adopted at Vienna on June 12, 1973.

Furthermore, this instrument of ratification contains the following declarations:

"The Government of the French Republic declares that:

1) the said Agreement shall be applicable to the territory of the French Republic in Europe, to the departments of Guyane, Guadeloupe, Martinique and Reunion, and to the overseas territories of New Caledonia, French Polynesia, St. Pierre and Miquelon, Wallis and Futuna Islands and the French Southern and Antarctic Territories;

2) France does not consider itself bound by the provisions of paragraph (1) of Article 16 relating to the settlement of disputes." (*Translation*)

A separate notification will be made of the entry into force of the Vienna Agreement when the required number of ratifications or accessions is reached.

Vienna (Classification) Notification No. 2, of June 13, 1975.



# LEGISLATION

## SOVIET UNION

### Instructions

#### for the Drafting of Applications concerning Inventions

(of November 21, 1973) \*

#### I. General Provisions <sup>1</sup>

1. Any new technical solution of a problem in any field of the national economy, social and cultural activity or national defense, where the solution is distinguished by new essential elements and achieves a useful result, is recognized as an invention.

2. The subject-matter of an invention may be:

— a new device (for example, a machine, apparatus, tool, etc.);

— a new process (for example, a method of making an article, producing a substance, medical treatment, etc.);

— a new substance (an alloy, a mixture, a solution, a material produced in a non-chemical way, a chemical substance, etc.);

— a novel application of previously known devices, processes or substances according to a new purpose (without changing them essentially when a useful result is obtained directly from such an application).

New strains of microorganisms, i. e. hereditary homogeneous cultures of bacteria, viruses, algae, etc., producing useful substances or utilized directly, are also recognized as inventions.

3. The following in particular are not recognized as inventions:

— methods and systems of economic organization or management (such as planning, financing, supply, accounting, crediting, book-keeping, forecasting, setting standards, forms of documents, cards of files, etc.);

\* Adopted by the State Committee for Inventions and Discoveries of the USSR Council of Ministers on November 21, 1973, and effective as from May 1, 1974.

<sup>1</sup> The following abbreviations are used in the text of these Instructions:

— The Instructions for the Drafting of Applications concerning Inventions: these Instructions;

— The Statute on Discoveries, Inventions and Rationalization Proposals: the Statute;

— The finding as to the novelty of a technical solution (including the information on the patent search made), the indication of its possible utilization in the national economy and the expected technical, economic and other effects are described in these Instructions as: the finding as to the novelty, the distinguishing essential elements and the useful results of the technical solution;

— an organization, institution or enterprise: organization.

(This footnote is in the original text. The Statute was published in *Industrial Property*, 1974, p. 298 — Editor's Note.)

Note: This translation has been prepared in collaboration with the State Committee for Inventions and Discoveries of the USSR Council of Ministers.

— conventional signs (such as traffic signs, itineraries, codes, letters, etc.), time-tables and rules (such as rules of games, traffic regulations, navigation instructions, etc.);

— projects and schemes of construction layouts, buildings and territories (such as settlements, agricultural lands, parks, streets, squares, etc.);

— methods and systems of education, teaching and training of animals, grammatical systems of languages, information, classification, and research systems relating to forecasts and other research work, systems of processing and arranging documentation, systems of mathematical operations and transformations, methods of calculation, methods of scientific research, methods of developing projects, etc.;

— proposals concerning the external appearance (shape or style) of manufactured articles protected under industrial design law;

— technical solutions contrary to the public interests or to the principles of humanity or socialist morality and obviously useless solutions;

— scientific discoveries, scientific theories and basic principles of science not providing a technical solution for a specific problem.

4. An inventor's certificate, but not a patent, is granted where the subject of an invention is any of the following:

— substances obtained through chemical processes;

— substances obtained by nuclear fission, and devices or processes connected with the production or utilization of nuclear energy;

— pharmaceutical, flavoring or food substances, cosmetic products and methods of prophylaxis, diagnosis or treatment of human or animal diseases approved under the law in force;

— strains of microorganisms.

5. An inventor's certificate only is granted for an invention that has been recognized as secret in the prescribed manner and for supplementary inventions provided that they improve a main invention protected by an inventor's certificate.

6. Inventors' certificates are granted by the Ministry of Agriculture of the USSR for the following selection achievements, which are treated in the same way as inventions as far as their legal protection is concerned:

— new varieties and hybrids of agricultural crops and other cultivated plants;

— new breeds of farm animals and poultry, their highly productive stock, cross-breeds and descending lines;

— new breeds of fur-bearing animals and silkworms.

Applications for inventors' certificates for the above-mentioned selection achievements must be submitted to the Ministry of Agriculture of the USSR.

7. An inventor's certificate, but not a patent, is granted where an invention is made in connection with the inventor's work in a State, cooperative or social organization or in the fulfillment of a commission therefrom or where the inventor has received pecuniary or other material assistance from a State, cooperative or social organization, provided, in the case of inventions made by Soviet and foreign inventors in collaboration with each other, that nothing to the contrary is laid down by an international agreement.

8. Applications for an inventor's certificate or patent for an invention must be filed with the State Committee for Inventions and Discoveries of the USSR Council of Ministers<sup>2</sup>. Applications for highly secret inventions relating to new means of armament, military technology and their tactical use are received and examined by the Ministries and Departments determined by the Council of Ministers of the USSR.

9. An application for an inventor's certificate must be filed by the inventor (or joint inventors) or his heirs.

An application for an inventor's certificate for an invention made in the performance of assigned tasks must be drawn up with the participation of the inventor (or joint inventors) and filed by the organization.

10. If the application is not filed by the organization within one month from the date when the technical solution was identified or from the date when the inventor submitted his proposal, the inventor may file the application himself directly with the State Committee, stating that the invention was made in the performance of assigned tasks and that the organization has not filed the application within one month.

11. Applications for a patent must be filed by the inventor or his successor in title and must state the name of the true inventor. Applications for an inventor's certificate filed by the inventor's heir and applications for a patent filed by the inventor's successor in title must be accompanied by a document certifying the succession to the rights.

12. Applications filed through the representative of the inventor or of his successor in title must be accompanied by a document certifying the powers of the representative.

13. Organizations must identify, without delay, inventions made in the performance of assigned tasks and shall draw up the applications for inventors' certificates for such inventions in the name of the true inventor (or joint inventors) or his successor in title and file them in the prescribed manner with an indication of the organization where the invention was made. The engineering and technical personnel shall inform the administration of the organization of technical solutions elaborated by them or by their subordinates in the performance of assigned tasks where such solutions may, in their opinion, be recognized as inventions. The organization shall notify the inventor that an application is to be drawn up and shall enlist his assistance in this task.

14. The application must be filed by the organization within one month from the date when the technical solution was identified or from the date when the inventor submitted his proposal if the application is being filed upon his initiative. Where the organization asks to be included as an applicant after the acceptance of the application for the purposes of examination, which it may do not later than six months from the date when the application was filed, the organization must produce the documents required by these Instructions in the case of applications by organizations.

15. Where an inventor employed in an organization makes the invention otherwise than in the performance of assigned tasks, he may file an application for an inventor's certificate through the intermediary of the organization, which should render the inventor assistance in drafting the application within one month of being requested to do so by the inventor, and file the properly drafted application with the State Committee.

If an invention which is the subject of an application relates to the type of activity of a given organization the latter must carry out the novelty search relating to the alleged invention on the basis of the data available to it<sup>3</sup>, and state its finding as to novelty (including information on the patent searches performed), indicating the possible fields in which the invention could be utilized in the national economy.

If the invention which is the subject of an application does not relate to the type of activity of a given organization the finding as to novelty is not stated (nor is any information on patent searches performed), and no statement is made indicating the possible fields in which the invention could be utilized in the national economy nor the expected technical, economic or other effects, and when the application is sent to the State Committee it is pointed out that the invention in question is not related to the type of activity of this organization.

16. Inventors who do not work in organizations or who do work therein but have made inventions otherwise than in the performance of assigned tasks may file applications for inventors' certificates directly with the State Committee. An inventor may also file the application for an inventor's certificate through the local branch of the All-Union Society of Inventors and Rationalizers which must assist him in drawing up the application and file, in proper form, the application with the State Committee within a month from the date of the inventor's request for such assistance. In doing so, it is necessary to use all the available general technical literature and patent documentation for identifying the essential elements of the subject-matter of the invention concerned in comparison with the already known analogous technical solutions, in accordance with Articles 49 and 50 of these Instructions.

<sup>3</sup> The following data should be included: the basic descriptions of inventions attached to inventors' certificates; the bulletin of the State Committee "Discoveries, Inventions, Industrial Designs and Trademarks"; the reference journal of "VINITI" (i.e. the Central Institute for Technical Information — Editor's Note), the reference information of "ZNIPI" (i.e. the Central Institute for Patent Information — Editor's Note) on foreign inventions; scientific and technical literature; foreign patents available.

(This footnote is in the original text — Editor's Note.)

<sup>2</sup> Hereinafter called "the State Committee" (Editor's Note).

17. An application concerning an invention made jointly under the auspices of the economic, scientific, and technical cooperation of the member States of the CMEA (Council for Mutual Economic Assistance) is submitted to the State Committee by the organizations that took part in the activity that led to the creation of the invention.

The application is filed with an indication of the true inventors.

18. Applications for an inventor's certificate or a patent must include the following documents:

- a request for the grant of an inventor's certificate or a patent;
- a description of the invention together with the claims;
- drawings, diagrams, reports on trials and other material illustrating the alleged invention, if they are necessary for as complete a disclosure as possible of the essence and importance of the invention;
- a certificate attesting the creative participation of each of the joint inventors in the elaboration of the invention.

19. When filing the application for the grant of an inventor's certificate in accordance with Section 41 of the Statute, the Soviet organization should attach the finding as to the novelty, distinguishing essential elements, and useful results of the technical solution, in addition to the documents mentioned in Article 18 of these Instructions.

20. When necessary (see Article 133 of these Instructions), the report on trials and other documents confirming the possibility of obtaining the alleged subject-matter of the invention, for example, the substance or the strain of microorganisms, and confirming the efficiency of the same, should be attached to the application.

21. The documents mentioned in Articles 18 and 19 must be filed in triplicate.

22. Applications must be filed in Russian.

23. In order to accelerate the technical processing of the application in the State Committee it is recommended to attach, in addition to the documents to be produced with an application filed by an organization, two copies of the certificate of acceptance of the application for examination on forms of the type annexed to these Instructions<sup>4</sup>, completed in type-writing but without indication of the number of the application and date of priority, and inventors' cards (according to the number of inventors) partially filled in (examples of how to complete the forms are shown in Annexes 1 and 2<sup>5</sup>). After the State Committee has stamped the certificate and stated the date of acceptance of the application, one copy of the certificate is sent to the applicant.

24. When applying for a patent, one copy of the receipt for payment of the fee for filing must be attached to the application.

25. Persons resident abroad must submit the application for an invention to the USSR Chamber of Commerce, which acts as the representative of a foreign applicant and, acting on the basis of the instructions of the latter, conducts the proceedings connected with the granting of the inventor's certificate or patent in the USSR.

26. In addition to the documents mentioned in Article 18 of these Instructions the following documents must be attached to the application for the grant of an inventor's certificate or patent filed by foreign citizens:

- a power of attorney given by the applicant to the Department for the Patenting of Inventions of the USSR Chamber of Commerce for transactions related to obtaining the patent or inventor's certificate for the invention. The power of attorney should be legalized at a Soviet consulate abroad, excluding those cases where legalization is not required on the basis of reciprocity (for example, according to an international treaty or agreement signed by the USSR); one power of attorney for a term of three years beginning from the date when it is granted should be filed for the applications of the same applicant;
- documents confirming the entitlement of the applicant legalized at a Soviet consulate abroad, excluding those cases where the legalization is not required on the basis of reciprocity;
- a signed statement of inventorship signed by all the inventors instead of the certificate of creative participation of each of the joint inventors in the elaboration of the invention.

One copy is filed of the request, signed statement of inventorship, instrument of transfer and power of attorney, but the description, claims and graphic material relating to the invention must be filed in triplicate, and all in Russian.

When the description and claims relating to an invention are translated into Russian one copy of the description (together with the claims) is filed in the original foreign language.

The first and last names of the inventors who are foreign citizens and the name of the enterprise should be transcribed, i. e. shown in symbols reflecting all the subtleties of pronunciation, when filing the application for the grant of an inventor's certificate or patent.

The forms of instruments of transfer, signed statement of inventorship and power of attorney are determined by the USSR Chamber of Commerce.

The signed statement of inventorship must state that no other persons will be added to the list of inventors after the acceptance of the application by the State Committee for consideration.

The application for the grant of an inventor's certificate or patent must indicate the true inventors and the kind of priority being applied for — ordinary priority or priority under a convention.

The application for the grant of a patent must indicate that the fee for filing has been paid, showing the number and date of the receipt.

<sup>4</sup> These forms are not published here.

<sup>5</sup> The Annexes are not published here.

27. When priority for an invention is applied for with reference to the date of an application or applications previously filed on the basis of an international treaty or international agreement, the filing date, number(s) of the previously filed application(s) and name of the country where the invention was the subject of an application for the first time must be shown in the appropriate spaces of the application for the grant of a title of protection (see Appendix 3, form III<sup>6</sup>).

Duly certified copies of the foreign application(s) which are necessary for establishing the date of priority, and other necessary documents, must be submitted within three months from the date of filing the application provided that nothing to the contrary is laid down by an international treaty or agreement. A translation of the previous applications on the basis of which priority is claimed is to be submitted upon the request of the State Commission for Scientific and Technical Examination within three months from the date of filing the application.

The application filed must be wholly or, so far as regards its material part, identical to the certified copy of the earlier properly drafted application.

If the applicants in the application filed and in the earlier properly drafted application are different, then a document transferring rights must be attached to the documents filed with the application. In this case, the inventors named in the earlier properly drafted application must be mentioned in the application filed.

If several different priorities are claimed these claims must be supported by the submission of all the earlier properly drafted applications containing the earlier descriptions of any and all characteristics of the invention in respect of which application was made.

When filing an application for an invention which was previously exhibited at official or officially recognized international exhibitions held in the USSR, an applicant wishing to take advantage of a six-month preferential period must attach, to the documents filed with the application, the certificate of the organizers of the exhibition stating the date when the subject-matter of the invention mentioned in the application was first exhibited to the public.

28. In accordance with the Statute every application for the grant of an inventor's certificate or patent must relate to one invention, i. e. to a single technical solution of a problem.

The artificial dividing-up of the subject-matter as a whole (in disregard of the unity of the invention) into component parts is not permitted. A part of the subject-matter can only be submitted as constituting an invention in those cases where the subject-matter of the invention relates to this part exactly and this part could be used together with other objects.

Two or more inventions relating to different categories of subject-matter (a device, process or substance) may be treated as one if they serve a single purpose and can only, on the date when the application is filed, be utilized jointly.

In this case a single title of protection — an inventor's certificate or patent — is issued with the headings of the

invention drafted in the following order: a substance, process, device.

29. In accordance with the Statute, the State Committee sends back the application for the grant of an inventor's certificate or patent without examination if the application relates to subject-matter not recognized as an invention (the list of such subject-matter is given in Article 3 of these Instructions).

30. The State Committee has the right to refuse to examine an application for the grant of an inventor's certificate or patent, on the grounds that it is impossible to conduct such an examination, in any of the following cases where the prescribed requirements have not been fulfilled:

(a) where the description of the invention is obscure or incomplete, is not correlated with the drawings by means of reference numbers showing elements and wholes or is typed illegibly, or the purpose of the invention is not stated; or where, in the description of the characteristics of a substance, only ingredients are shown (if it is not a chemical substance) without their quantitative ratios being shown; or where the description contains no specific examples showing that the purpose of the invention can be achieved by the process or substance claimed; or where there are no claims or claims which do not correspond to the contents of the description;

(b) where the method of obtaining the substance is not disclosed in the description of the application for the grant of an inventor's certificate if the substance is obtained by a chemical means or the field of utilization of this substance is not indicated;

(c) where the claims do not set out the technical essence of the invention: for example, the advantages of the subject-matter are shown instead of its specific peculiarities, or the subject-matter of the invention is characterized by peculiarities which are extrinsic to the category of invention concerned (where a device is characterized by methods and operations, a process by features relating to design, or a substance only by a qualitative set of ingredients without their quantitative ratios being shown (for alloys, solutions, mixtures, etc.));

(d) where the drawings and diagrams attached to the description are not complete and distinct, and there are no reference numbers in them for parts, elements and wholes of the subject-matter;

(e) where the documents filed with the application do not include a document showing that it is possible to obtain a substance with the properties that are indicated in the description of the invention and ensure the achievement of the purpose stated in the description and in the claims or where there is no certificate (or other document) relating to the testing of the process claimed as the subject-matter of the invention in those cases where it is not otherwise possible to reach certainty as to the possibility of achieving the stated purpose;

(f) where the application, description, drawings, instruments and reports, etc., are not signed, and when necessary not sealed;

(g) where in the case of an application for an inventor's certificate, filed by an organization, the application documents do not include a finding as to the novelty of a technical

<sup>6</sup> This Appendix is not published here.

solution (including information on the patent searches performed) with the indication of the possible fields in which the invention could be utilized in the national economy and of the expected technical, economic or other effects.

31. The State Committee sends back the application for the grant of a patent without examination if the following requirements, in particular, have not been fulfilled in addition to those mentioned in Article 30(a), (c), (d), (e) and (f):

(a) where a document confirming the payment of the fee for filing is not attached to the application;

(b) where any of the documents stipulated in the Statute is not included in the documents filed with the application, namely — the request, the description together with the claims, drawings, diagrams and report on trials (provided they are necessary for illustrating the invention);

(c) where a document showing the transfer of title is not attached to the application when the application is filed by the successor in title to the inventor;

(d) where the inventors, their addresses, places of work and nationalities are not shown in the application for the grant of the patent;

(e) where the application was not filed through the USSR Chamber of Commerce (if an applicable international agreement does not provide otherwise);

(f) where the applicant requests a patent for an invention eligible for an inventor's certificate only;

(g) where a patent of addition for an invention supplementary to the main invention is applied for when an inventor's certificate has been granted for the main invention;

(h) where in the description of the invention there are no data on the expected technical and economic and other results of the use of the invention in the fields of technology where it can be utilized.

32. Where other requirements relating to the application provided for in these Instructions, but not mentioned in Articles 30 and 31, i. e. those that do not constitute a basis for rejecting the application for the purposes of examination, are not complied with, the applicant is invited to rectify the application and supplement it with the documents which are lacking. If the applicant submits the documents rectified and supplemented, without changing the essence of the application, within two months from receipt of the communication inviting him to do so the priority of the application runs from the date when it was first filed. If the rectified and supplementary documents are not submitted within due time, the application is not processed further and is treated as not having been filed.

## II. Requirements relating to an Application

33. The application for the grant of an inventor's certificate or patent must contain all the information stipulated in the appropriate forms shown in Annex 3<sup>7</sup>.

34. Three forms of application are available depending upon the identity of the applicant:

— the application of an organization containing the request for the grant of an inventor's certificate for an invention to the true inventor(s) of the invention and of such a certificate to the organization for an invention made in the performance of assigned tasks, and also the application of an organization that made the invention jointly under the auspices of economic, scientific and technical cooperation of member States of the CMEA;

— the application of an inventor or of joint inventors who made the invention otherwise than in the performance of assigned tasks and who are applying for an inventor's certificate on behalf of themselves and submitting the application through an organization with its findings in writing or through local branches of the All-Union Society of Inventors and Rationalizers, or independently, or applying for a patent and submitting the application for it independently;

— the application of the USSR Chamber of Commerce on the basis of applications submitted by an inventor (or joint inventors) or his successor in title (foreign citizens), or of a foreign enterprise (organization) applying for an inventor's certificate in the inventor's name or for a patent in the name of the inventor or his successor in title with the indication of the family name, first name and patronymic (if any).

35. In order to file an application for an invention made by an organization in the performance of assigned tasks the application must be signed by the director of the organization and the inventor (or joint inventors) of the invention. The description of the invention and every sheet of graphic material must be signed by the director of the patent department or the director of the bureau of rationalizations and inventions and the inventor (or joint inventors).

The finding as to novelty, distinguishing essential elements and useful results of the technical solution is signed by the author of the finding and by the director of the patent department (or by the director of the bureau of rationalizations and inventions) and approved by the director of the organization.

The signature of the director of the organization on the application, the finding as to novelty, distinguishing essential elements and useful results is sealed.

The name of the organization should not be mentioned either in the description of the invention or on the drawings and diagrams or in the titles of posts of persons who sign the description and drawings and diagrams.

36. All the forms relating to the application should be filled in by typewriter.

37. When inventors file the application independently or through the local branches of the All-Union Society of Inventors and Rationalizers, the application and the description, together with the claims and the graphic material, are signed by the inventors. When the inventors file the application through an organization, the application and the description together with the claims, graphic material, the certificate of search relating to the subject-matter of the claimed invention in patent, scientific and technical literature (if it is drawn up by the inventors) must be signed by the inventors. If the organization in rendering assistance to the inventors states its find-

<sup>7</sup> The Annexes are not published here.

ing as to the novelty of the technical solution (including information on the patent searches performed) indicating the possible fields in which the invention could be used in the national economy, then the inventors should only sign the certificate of search dealing with that part of the subject-matter of the invention to which the finding as to novelty relates.

38. When filing an application concerning an invention made jointly (under the auspices of scientific and technical cooperation of organizations of the member States of the CMEA), all these organizations must be listed in the application for the grant of the inventor's certificate and the countries entitled to the invention must be named (with reference to an agreement on the basis of which the work was carried out); see Form 1 in Annex 3<sup>8</sup>.

The application for the grant of an inventor's certificate for an invention made jointly must be signed and sealed by the directors of the organizations on behalf of which the application is filed.

The description of the invention and every sheet of graphic material must be signed by the directors of the patent department of these organizations (or the directors of the bureaux of rationalizations and inventions) and by the joint inventors.

When an application is filed by Soviet organizations the finding as to novelty, distinguishing essential elements and useful results must be signed by the author(s) of the finding, the directors of the patent departments of these organizations (or the directors of the bureaux of rationalizations and inventions) and approved by the directors of the organizations.

When an application is filed by a Soviet and a foreign organization, the finding as to novelty, distinguishing essential elements and useful results must be signed and approved by the Soviet organization.

The correspondence concerning such application is entrusted to one organization only, and its address is shown in the corresponding space of the application.

The same rules of procedure must be observed when an application is filed for an invention made jointly and when a patent is applied for.

39. When an inventor's certificate of addition or a patent of addition is applied for, the statement "addition to inventor's certificate (patent) No. . . ." must be inserted in the line "Title of Invention" in the application for the grant of the inventor's certificate or patent.

### III. Requirements as to the Description of the Invention and the Claims

40. The description of the invention together with the claims and the graphic material (drawings, diagrams, etc., if they are necessary) are the main documents of the application representing the invention made and they should:

— reveal completely the technical essence of the invention and contain sufficient information for the subsequent

development (as regards construction or technology) of the subject-matter of the invention or its direct utilization (for example, in the case of a technical solution consisting in utilizing a known object for a new purpose);

— give an exact and explicit understanding of the novelty, distinguishing essential elements and useful results of the technical solution claimed and the contribution made by the invention to a given field of technology or industry.

41. The description of the invention must take the following form:

— the title of the invention and the class of the International Patent Classification to which, in the applicant's opinion, the invention belongs;

— the field of technology to which the invention relates and the field in which use of the invention will be of benefit;

— the characteristics of analogous inventions;

— the characteristics of a prototype chosen by the applicant;

— the criticism of the prototype;

— the purpose of the invention;

— the essence of the invention and its distinctive features (compared with the prototype);

— the list of graphic material (if it is necessary);

— examples of specific embodiments;

— the technical, economic or other benefit;

— the claims.

Differences from the above-mentioned form of description are allowed in exceptional cases where because of the character of the invention it is necessary to use another order of disclosure in order to facilitate understanding of the invention, for example, in the description of a new strain of microorganisms.

42. Every heading of the description should be set forth as a separate paragraph (see the examples of descriptions) in order to facilitate subsequent work for publishing or preparing the description for patenting abroad.

43. When setting forth all the headings of the description, it is necessary to observe the following rules:

— to use generally accepted terms in a given field of technology;

— to stick to the same terminology;

— to use a single system of units of measurement.

44. On the first page of the description there should be left a free space at the top, 8 to 9 centimeters in depth, for putting the remarks of the State Committee; the family name, first name and patronymic of the inventor (or joint inventors) should be placed in this space. The class of the International Patent Classification, for example "B62k," is shown to the right from the middle of the page and the name of the invention is put in slightly below.

45. The title of the invention should be exact, brief and concrete and should contain not more than 8 to 10 significant words and correspond to a certain heading of the International Patent Classification. It should correspond to the essence of the invention and indicate specifically what kind of

<sup>8</sup> The Annexes are not published here.

things the subject-matter of the claimed invention relates to, because the class of the International Patent Classification is to be determined according to the title of the invention.

The title of the invention should characterize the purpose of the subject-matter (a function performed by the subject-matter) or indicate what field of technology this subject-matter belongs to. In the first case, the title of the invention should relate to objects the use of which is known and having a generally accepted name ("Voltmeter," "Aerometer," etc.); in the second case, to objects the use of which is little known or is new or to a function performed in different fields of technology ("Apparatus for the Fermentation of Must," "Method of Heat Treatment of Parts Made of Corrosion-Resistant Steels," etc.).

The title of the invention should not contain the features mentioned in the characterizing portion of the claims.

The title of the invention in the description should be exactly the same as the title mentioned in the application for the grant of the inventor's certificate or patent.

As a rule, the title of the invention should be written in the singular with the exception of those cases where the name of the subject-matter does not have a singular form, for example, "scissors," "glasses," etc.

When the application comprises two or more different categories of subject-matter (for example, a process and a device) that serve a single purpose and may, on the date when the application is filed, only be used together, the title of the invention should include the names of these categories of subject-matter ("Method of Extraction of Uranium from Uranic Ores and Apparatus for the Extraction of the Same").

46. When the applicant requests that the invention be named after the inventor (for example, in the case of a pilot invention or of an object functioning in accordance with a new and more efficient principle) or that some special name be given to the invention, then this name or special name is added to the title of the invention mentioned in the description and on the application form, but it is not included in the claims. Therefore, if it is desired to confer the special name "Agricultural Poisonous Substance Etheran-59" to the invention, then this name should be mentioned in the application and description of the invention; but the claims should be drafted without this special name: "Agricultural poisonous substance on the basis of an isoamyl-2, 4-dichlorophenoxy-methyl ether and surface-active substances distinguished by . . .," etc.

A request for the conferring of the inventor's name or of a special name should be expressed in a separate sentence at the end of the description before the claims; the special name should not be mentioned elsewhere in the description.

47. The drafting of the description should start with the indication of the field of technology to which the invention relates and the field in which use of the invention will be of benefit. This part of the description should usually begin with the words: "The invention relates to . . .".

The description should not give a broad interpretation of the invention by means of broadening the field of use of the invention.

For example, if the claims state: "Method of manufacturing a lead jacket for electric cable" then it should not be stated in the description that "the invention relates to methods of manufacturing metal, for example, lead jackets for cable" or that "the invention relates to methods of manufacturing lead jackets for cable and tubes."

The description must not describe the invention in narrower terms than do the claims.

For example, if the claims state: "Method of manufacturing metal protective jackets for electric cables" it is not permissible to state in the description that "the invention relates to methods of manufacturing protective jackets for ferrous metals" because the claims also protect the manufacture of protective jackets for aluminum, zinc and other non-ferrous metals, but the sentence mentioned in the description excludes the possibility of manufacturing jackets for these metals.

48. Under the heading "Characteristics of Analogous Inventions," the description should state what were the earlier-known solutions of the same problem (analogous solutions) i. e. the subject-matter of an invention used for the same purpose and similar in technical essence and in the results obtained during use.

The analogous inventions mentioned should be the ones most similar to the invention claimed and the most progressive technical solutions in the relevant field known at the time of drafting the application; they should be used for comparing the claimed invention with them in usefulness.

The data from the statement of search concerning the claimed invention in patent, scientific and technical literature should be used for this purpose (see Article 128 of these Instructions).

Essential features of analogous inventions should be disclosed giving a brief summary of their characteristics; i. e. a description of the technical essence of known objects and those that are similar to the features of the subject-matter claimed should be mentioned without fail.

Disadvantages of analogous inventions that are partially or completely eliminated in the claimed invention should also be mentioned.

When making a search for inventions analogous to the claimed invention and for the most progressive technical solutions, it is necessary to study descriptions of inventions in a corresponding class or in corresponding classes and in special literature in a given field and information on the use of such solutions in industry.

49. A characteristic of a specific known device, process or substance that is the most similar to the claimed invention by its technical nature and proven useful results, i. e. the most analogous out of the inventions mentioned earlier by the applicant (see also Article 128 of these Instructions), should be given under the heading "Characteristics of a Prototype Chosen by the Applicant" of the description.

*Comment.* The analogous invention which is similar to the claimed invention as regards the greatest number of essential features or as regards the main feature should be considered

as the most similar to the claimed invention in respect of its technical essence.

Where the prototype chosen by the applicant is described, a bibliographic reference to a source should be included under this heading, or it should be pointed out that the reference to sources, where analogous inventions and the prototype are discovered, is included in the statement of search concerning the claimed invention in patent, scientific and technical literature.

50. Only those prototype disadvantages that are eliminated by the invention should be described under the heading "Criticism of Prototype." Disadvantages inherent to known technical solutions of the same problem should be characterized objectively without exaggeration. This particularly relates to those cases where an object which is being used technically (in the national economy) is given as a prototype. When describing the disadvantages of the prototype the reasons which lead to these disadvantages should be pointed out, if possible.

51. The purpose achieved by using the invention, which should be characterized objectively and with solid reasons, without assertions of an advertising character, should be stated under the heading "Purpose of Invention." Solid reasons backing up the objectivity of the statement on the purpose of the invention include the necessity of satisfying a public demand that called for a given technical solution of a problem, or the necessity of improving a known solution.

The purpose of the invention (i. e., an expected benefit resulting from use of the invention) stated in claim 1 of the claims should be causally related to the features of the subject-matter of the invention which are enumerated in the claims and which ensure the achievement of this purpose.

It is permissible to state other purposes (not mentioned in the claims) in the description of the invention that the inventor bore in mind when making the invention.

52. Under the heading "Essence of the Invention" a summary of the invention in the form of an aggregate of all essential features highlighting those features that characterize the novelty of the technical solution should be given. The claims should be used for drafting this but the features mentioned in the claims should not simply be stated but explained in detail. The nature of the distinguishing elements of the subject-matter of the invention should be shown, i. e., the relationship between a new set of features and the useful results which could be achieved in utilizing the invention should be disclosed.

If the claims comprise many claims, it is necessary to characterize not only the first claim in this part of the description but all the dependent claims.

53. When it is necessary to illustrate the invention with accompanying graphic material then the list of all such graphic material should be included after the description of the essence of the invention with a brief indication of what is shown in each of them. The graphic material should be numbered in Arabic numerals, and a separate explanation should be given of every drawing or diagram.

If there is only one drawing or diagram illustrating the description it need not be numbered, but a reference to it should be made in the following manner, for example:

— "a general view of the suggested invention is shown in the drawing . . ."

— "a suggested method is illustrated in the diagram . . ."

— "a block-diagram shown represents . . ." etc.

The submission of accurate and clear drawings or diagrams does not exempt the applicant from the obligation to draft a detailed textual description of the invention.

54. Under the heading "Examples of Specific Embodiments" of the description, the best embodiments suggested by the applicant should be mentioned. This heading may vary according to what is described, whether a device, process or substance, or the utilization of a known device, process or substance for a new purpose.

55. The description of a device should be drafted in such a way that it is not necessary to guess or assume the design of the assemblies, parts and pieces mentioned in it. The assemblies, parts and pieces mentioned in the description, the connections between them, including the connections between known and new assemblies, parts and pieces of a device, should be shown in drawings or diagrams. Numerical references should be made to all parts, pieces and assemblies mentioned in the description and shown in the drawings and diagrams. These numerical references should be made as the corresponding parts, pieces and assemblies are mentioned in continuous sequence beginning from one. The same reference numbers should appear in all drawings and other graphic material.

All the headings mentioned in the description should also be shown in the graphic material, and, if the subject-matter described is illustrated by several drawings or diagrams, the first heading should always relate to the first drawing or diagram.

56. The description of a device should begin with the description of its design in a static state; all the assemblies, parts and pieces constituting a given design and shown in the drawings or diagrams should be mentioned here, and their functions and connections and the relative positions of parts of the device should be explained.

Design features and, if necessary, technical features, of the device claimed should be described in detail in this part of the description.

57. After the description of the device in a static state, its operation or method of use should be described, using the same numerical references as in the drawings or diagrams.

After the description of the device in operation, other embodiments, if any, of the device or other (equivalent) variants of its components should be described, with an indication of some of their advantages. The ideal embodiment of the device should also be mentioned and characterized here.

If the device is simple and its operation obvious without description, that operation need not be described.

58. The description of the application of a process should begin with a list of the operations that are required for the achievement of the purpose of the invention. If the order in which these operations are carried out is important, they should all be shown in that order only, which must be specified in the claims.

Further, real parameters (temperature, pressure, etc.) and the process, devices and substances used should be described.

The examples given should contain, besides the main parameters mentioned in the claims, such other parameters as are necessary to characterize the process, for example the weight of starting and final products, the output of products, methods of extraction, etc., that are necessary for the application of the process but are not mentioned in the claims.

59. The number of specific examples mentioned in the description of the process is determined by the nature of the distinguishing features included in the claims.

If the parameters of an operation, for example a relatively large temperature range for the heating of a reaction mass (e. g., minus 20° plus 60° C), are specified in the claims as distinguishing features, the reasons for the limits of the range indicated should be given, as well as one example each of the optimum and extreme values of the range, with a detailed indication of the parameters or properties that characterize the end product (quantity and quality).

If the temperature range is small and the possibility of realizing the process at its extreme limits obvious, it is sufficient to give one example of the process carried out according to the optimum parameters.

If the parameters of an operation are not shown among the distinguishing features of the process for obtaining a substance, one example should also be given.

In the drafting of the description of the process for the production of a group of substances which constitute a single homologous line, one example of the production process of a representative element of this line should be given if there is an obvious possibility of adapting the process to produce the other elements of the line. This applies not only to a homologous line but to substances characterized by a common structural formula.

60. If commonly-known technical means (devices and tools) are necessary for the application of the process, those means should be mentioned in the description. If hitherto unknown technical means are necessary for the application of the process, the characteristic features of those means should be indicated in the description, and especially in the examples of the application of the process, and they should be illustrated by drawings or diagrams.

61. Information concerning the use of a new chemical substance as a medicine or as a starting product for the production of a medicine should not be included in the description of the process whereby the new chemical substance is produced without the approval of the Ministry of Health or the Ministry of Agriculture of the USSR. In such a case the compound's biological or physiological action on the organs or systems of a living organism should be shown in the description, and corresponding experimental data should be given.

62. The ingredients of the substance, their parameters and their quantitative ratios should be given in specific examples of the use of the invention relating to that substance (mixtures, solutions, alloys, glass, etc.).

The quantitative ratio of ingredients in specific substances should be within the limits of the ratios of ingredients mentioned in the claims, including the extreme values of the range.

If the quantitative ratio of ingredients is expressed in the claims as a percentage of weight or volume, the sum of the percentage of all the ingredients of a specific example of the substance should be one hundred.

Specific examples of the application of processes should relate both to the extreme values of ingredients and to their intermediate values.

The physical state and the quality of these ingredients in their initial form should also be indicated.

63. The description of a substance produced by chemical means should provide information on the chemical structure and the physical and chemical properties of the substance; it should also indicate the means whereby it is produced, the area in which it may be used, its purpose and its advantages in comparison with known substances having the same purpose, or state useful results.

The description should compare the parameters of chemical substances produced (when a compound of a known group is produced by synthesis) with documentary data, in particular such parameters as boiling-point or melting-point, and spectral characteristics. In the case of synthesis of a new compound not mentioned in the literature, the description should give the results of a complete analysis which confirms the structure and physical constants of the substances produced.

The indication of the ratio of ingredients in vague terms such as "about," "approximately" and "roughly" is not permissible.

The report on trials with respect to the substance (see Article 133) should be attached to its description.

64. In the description of an invention the purpose of which is the use of a previously-known device, process or substance for a new purpose, there should be an indication of previously-known means of achieving the same purpose, the purpose for which the device, process or substance concerned was used earlier, the new purpose of the device, process or substance, and the useful results of its use for that purpose.

65. If the description relates to two or more different categories of subject-matter (a substance and its production process, the production process of a substance and the device for carrying out that process) which serve a single purpose and may, on the date of filing of the application, only be used jointly, a detailed description of every category of subject-matter should be given. The field to which the technical solution relates should be indicated under "Field of Technology"; the subsequent headings should indicate known analogous solutions of the same problem, the disadvantages of those solutions, the characteristics of a chosen prototype or of

chosen prototypes, the purpose of the invention, the main features of every category of subject-matter claimed (for example, a substance and its production process) and examples of the realization of every category of subject-matter, of the invention; the expected result of the combined use of these different categories of subject-matter should be indicated under "Technical and Economic Benefit."

It should be clearly indicated in the description why the two or more categories of subject-matter of the invention may only be used jointly.

66. No part of the description of the invention may be replaced by a reference to the description of the same part in another document (for example, an application filed earlier, a description relating to an inventor's certificate (patent) granted earlier, or other documentation).

However, reference may be made to one or more sources where known features of the invention (included in the description) are mentioned.

67. When the description of a supplementary invention is drafted, the heading "Known Technical Solutions" should be omitted, because the analysis of previous inventions is confined to the analysis of a prototype which is the subject-matter of a main invention.

The number of the inventor's certificate or patent for the main invention, together with the appropriate symbols of the International Patent Classification, should be given under "Characteristics of Prototype Chosen by Applicant," the characteristics of the subject-matter of the invention being mentioned afterwards.

68. Data concerning the technical, economic or other effectiveness of the invention should be mentioned in the concluding part of the description of the invention.

The following data should be shown in this part of the description:

— technical and economic advantages of the invention in comparison with the most progressive analogous technical solutions in the field known to the applicant (for example, factors of improvement in the quality of a manufactured article, extent of an improvement in measurement accuracy, increase in the efficiency of a device, process, etc.);

— the expected economic or other effects which can be achieved in the national economy and, in particular, which an organization that is an applicant expects as a result of using the invention;

— a tentative indication of the work necessary to make the invention ready for industrial use, and the time necessary for the completion of that work.

69. The description of the technical and economic advantages of the invention should be drawn up on the basis of concrete data and not mere statements.

The purpose of the invention should be confirmed by convincing evidence of its achievement. An objective analysis should be made of the advantages of the subject-matter of the claimed invention in comparison with a known one, using the results of tests of the invention if such tests have been carried

out. If there are no such data, calculations, or a detailed explanation of the manner in which the purpose of the invention may be achieved, should be given. For example, if the purpose of an invented process is an increase in the output of products, the manner in which, and the extent to which, the output is increased should be indicated.

The reliability of the data given regarding the technical, economic and other effectiveness of the invention should be clear from the description of the invention, that is, the manner in which they have been obtained should be indicated (according to calculations by applicants, test data with the indication of the place of testing, results of testing of a pilot embodiment, etc.). If necessary, the calculations and documents confirming the results of experimental testing, etc., according to Section 44 of the Statute, should be reproduced in the application as confirmation of the data on the technical, economic or other effectiveness given in the description of the invention.

If the invention in any way involves safety considerations, it should be stated under this heading that conditions of safety will not be lessened by the use of the invention.

70. The description of the invention should be drafted in accordance with the claims and contain comprehensive information on the invention.

71. The claims consist of a brief written characterization drafted according to fixed rules and showing the technical essence of the invention. The characteristics of the invention must be represented by the features of the subject-matter of the invention.

72. An assembly of parts, parts of a device, operation or process, the parameters for the execution of a process, ingredients and their quantitative ratios in a substance, etc., are regarded as features of the subject-matter of an invention.

Features should be considered essential when they are individually indispensable and collectively sufficient to distinguish a given subject-matter from all others and characterize it to such an extent as to reveal its useful result.

A feature may only be recognized as essential in relation to the whole set of features of the subject-matter of the invention when its absence from the set of essential features makes it impossible to achieve the useful result which is the purpose of the invention, and when its presence in the set of features is the only sure means of achieving that useful result.

73. With respect to patents, the claims are drawn up in the form of one claim (single claim) or two or more claims (multiple claims). The single claim is used only when the essential features of the subject-matter of the invention cover its main technical characteristics and do not require amplification in subsequent claims.

74. The first claim in multiple claims (or each independent claim where the multiple claims relate to different categories of subject-matter) should include all the essential features of the subject-matter of the invention that are necessary and sufficient for the purpose to be achieved, described in suitably general terms, that is, in such a way as to cover all

expected and possible specific cases of realization and use of a given invention, and also the additional claims, so as to eliminate the possibility of bypassing the invention either by substituting one feature for another or by excluding any one of the features mentioned in the claims.

The features that enlarge upon and specify the features mentioned in the first claim, either directly or indirectly by means of later dependent claims, should be included in the second and subsequent claims.

Multiple claims define the invention more fully and are therefore preferable. However, the number of additional claims should not be increased without good reason.

75. The following rules should be observed when drafting claims:

— all the essential features of the subject-matter of the invention should be mentioned in the claims, due account being taken of the fact that those essential features should be necessary and sufficient on their own for the achievement of the purpose of the invention, that is, of its useful result;

— the claims should consist of a limiting portion including features which are common to the subject-matter of the claimed invention and the prototype (known features), a characterizing portion including the features which distinguish the subject-matter of the claimed invention from the prototype (i. e. new features of the subject-matter of the invention), and the purpose of the invention which describes a useful result;

— the limiting portion of the claims is separated from the subsequent characterizing portion by the expression: "distinguished by the fact that with the purpose of . . ." and the purpose of the invention is then described.

*Example.* "A method of producing printed circuits consisting in coating a prefabricated matrix, with raised conducting tracks, with a copper layer with the help of galvanic plating, the layer subsequently being transferred to a substrate; the said method is distinguished by the fact that with the purpose of facilitating the transfer of the said copper layer to the substrate the said matrix is moistened with a solution of a substance containing chromium before plating.";

— additional claims should be included when it is necessary to describe in detail (to define or to extend) a certain essential feature of the invention shown in the first claim. Additional claims may also extend and define the features contained in other claims. After stating the number of an additional claim, it is necessary to refer to the title of the invention by stating the initial words of the first claim and to refer to any other preceding claim related to the additional claim and to describe a specific use of the extended (or defined) essential feature(s);

— it is not necessary to mention the subject-matter of the invention in the additional claims.

*Example.* "2. A method of producing printed circuits as defined in claim 1 distinguished further in that the said matrix is moistened with a solution of potassium perchlorid in a concentration of 1 gram per liter.";

— it is prohibited to include the inventor's name, established abbreviations of the title (for example, lacquer K-17) or uncertain expressions — "rather light," "cold," etc.

76. When the subject-matter of the invention is the utilization of previously-known devices, processes or substances for a new purpose a different claim may be used which does not contain the term "distinguished."

In such a claim it is impossible to define the invention by reference to a combination of known and new features of the subject-matter because in such a case something which is not new but already known (with known features) is being described, and the invention itself consists in the utilization of this known subject-matter for a new purpose in order to obtain a useful result.

In such cases the claim should be drafted in the following manner:

"The utilization of . . . (the name or definition of a known device, process or substance should be shown) . . . as a . . . (a specific new purpose of the said device, process or substance should be shown)."

*Example.* The utilization of an electrolytic breaker as a sensor of temperature of an electrolyte (see also Example No. 4 in the Annex to these Instructions<sup>9</sup>).

77. The claims included with the application are of decisive importance for the invention's assessment by the organization responsible for the State scientific and technical examination of inventions as to the novelty, distinguishing essential elements and useful results of the subject-matter claimed, and if the subject-matter is recognized as an invention it is the claims alone that assume legal importance. The legal importance of the claims lies in the fact that they constitute the only criteria for defining the scope of the invention and the basis for establishing the fact of the utilization (or non-utilization) of the invention.

78. In the claims a device must be characterized by reference to the features of its design, i. e. the presence of new (for a given object) assemblies of parts, parts and mechanisms, their new arrangement, new connections or a new shape of known parts, assemblies of parts and mechanisms, a new material used for manufacturing a part, an assembly of parts or the object itself, etc.

In such cases the claims should define the subject-matter in a static state.

*Example.* "1. A threshing device comprising a threshing drum with a shaft and a sieve board located under the said threshing drum, and distinguished by the fact that, with the purpose of improving the separation of threshed grain through the said board by vibrating it, the said device has a vibrator and the said board is suspended on hinges to the said shaft of the drum with the possibility of rocking in the direction perpendicular to the said shaft.

2. A device as defined in claim 1 distinguished by the fact that with the purpose of limiting the amplitude of vibration the said board is bent by a spring in the direction of the said shaft.

3. A device as defined in claim 1 distinguished by the fact that the said vibrator is fixed on the said board."

<sup>9</sup> The Annexes are not published here.

79. In the claims a process must be characterized by reference to a certain sequence of actions (methods and operations achieved with the help of material objects) and in particular by the utilization of new operations and methods, a new sequence of known methods and operations, a change in such factors as temperature, electricity or timing, the utilization of certain materials, appliances and tools necessary for the realization of methods, operations, etc., constituting a new process.

*Example.* "1. A process for the continuous production of H-butanol by means of hydration of croton aldehyde in the presence of compositions of copper, distinguished by the fact that, with the purpose of increasing the output of the said product and lowering the temperature at which the process of hydration is realized, ethyl alcohol and butiric aldehyde are added to croton aldehyde, the mixture obtained is evaporated and the vapor together with hydrogen pass above a catalyst consisting of copper oxide layed over silica gel.

2. A process as defined in claim 1 distinguished by the fact that ethyl alcohol is poured into croton aldehyde and then butiric aldehyde is introduced into the mixture obtained until its concentration is 18 to 19 % by weight of the said mixture obtained.

3. A process as defined in claims 1 and 2 distinguished by the fact that hydrogen is introduced into vapor of the mixture of croton aldehyde, ethyl alcohol and butiric aldehyde in the amount of 0.3 to 0.7 liter per hour for 1 liter of the said mixture."

80. In the claims a substance should be characterized by reference to:

— ingredients and their quantitative ratios (for solutions, alloys, glass, mixtures, etc.);

— a new structure of one of the ingredients either without changing the quantitative and qualitative composition of the substance or with simultaneous changes thereto;

— in the case of a chemical combination a qualitative (atoms of specified elements) and quantitative (the number of atoms of every element) composition of the substance, chemical bonds between atoms and their relative disposition in a molecule represented in a structural formula of a molecule of the chemical substance.

A quantitative ratio of every ingredient of mixtures, solutions, alloys and glass, etc., should be represented by two numbers in any unit, representing the minimum and maximum limits of contents (the lower and upper limits of contents).

Where there is more than one claim the list of ingredients and their quantitative ratios should be shown in the first claim.

*Example.* "1. A retardant for hardening plaster containing osseous glue and lime, distinguished by the fact that, with the purpose of ensuring the stability of properties of the said retardant in prolonged storage, lengthening the period of hardening, the said retardant contains also a silico-organic compound and has the following ratio of ingredients by weight:

osseous glue	10 to 10.5
lime	11 to 12
silico-organic compound	1 to 2

2. A retardant for hardening plaster as defined in claim 1 distinguished by the fact that the said retardant contains ortho-silicate ester instead of a silico-organic compound."

If the quantitative ratio of every ingredient is represented as a percentage by weight then the values of the quantitative ratios of the ingredients taken at the lower limit should make up not less than 100 percent and the values of the quantitative ratios of the ingredients taken at the upper limit should be more than 100 percent.

A combination of ingredients within the limits of the values determined in the claims should make up a sum of 100 percent.

*Example.* "A ceramic mass for manufacturing, for example, supports for heat treatment of manufactured articles, the said mass contains alumina and zirconia and is distinguished by the fact that, with the purpose of increasing the strength and thermal stability of the said supports, the said mass also contains chalk with the following ratio of ingredients by weight, expressed in percentages:

alumina	60 to 70
zirconia	15 to 20
chalk	15 to 20."

The other elements found and which are practically unavoidable should not be included in the claims because they are not ingredients of the substance. They should be mentioned in the description of the invention with an indication of the maximum permissible limits of their presence (such that the properties of the substance do not change) in relation to a unit of amount of the substance (grams per liter, grams per kilogram).

81. When drafting the claims for a strain of microorganism, the characteristics of all the features sufficient for indentifying it and for establishing the fact that the suggested strain is really a new strain, which has not been described earlier anywhere, should be given.

The claims should include a name of the strain in the Roman alphabet, the registration number in the collection of cultures of microorganisms, the location of the collection, the name of a useful substance produced by the strain in question or the purpose for which it is utilized if it does not produce a useful substance, and a description of the morphological and physiological features and also antagonistic properties if they are of important significance.

*Example.* "A strain *Bacillus thuringiensis* var. *thuringiensis* (Berliner) 647, — a producer of a entomocidic toxin which is active with respect to flies and silk worms. The said culture is stored in the collection of the Institute of Microbiology of the Academy of Sciences of the Armenian SSR.

*Morphological features:* The cells are rectilinear, bacillus-shaped of size (1.2 to 1.4) x (3 to 6) micron. The said cells are agile and are encountered in the form of short and long chains. Peritrichs are Gram positive. Spores and diamond-shaped inclusions in the cells do not form. Dyeing with black Sudan reveals fatty inclusions inside the cells which are numerous in young forms.

Meat-peptone agar. Whitish cream-colored flat granular colonies with rhizoid edges. The colonies grow into the middle and are easily taken away with a loop. Pigments are not generated.

Potatoes and carrots. A good whitish-grey growth without pigmentation.

*Physiological features.* Reaction to oxygen. An optional aerobe. A maximum growth at 35 to 37° C.

Milk peptonizes non-actively with the formation of a clot.

Gelatine is diluted moderately.

Starch is hydrogenated.

Glucose, fructose, saccharose, ribose, maltose, trichalose, glycerine, cellobiose, salicyl. They are assimilated with the formation of an acid and without the discharge of a gas.

Nitrates are reduced.

Seroagglutination. Specifically agglutinated with a serum obtained to a peritrichous antigen from the strains *Bac. thuringiensis* var. *thuringiensis* (Berliner).

*Antagonistic features.* The said culture displays antagonistic properties to the culture *Bac. thuringiensis* CEEB-462.

82. When drafting claims including subject-matter of different categories (a substance and process for its production, a process and device for its application, etc.) which serve a single purpose and may only be utilized jointly, the first claim should define the subject-matter of the invention that most corresponds to the nature of the tasks (or problem) set and solved by the applicant.

Therefore, if the problem of how to create a substance has been solved for the first time, then this substance is defined in the first claim and the method of its production in the second claim.

The purpose of the invention should not be mentioned in the second claim because the second claim (or the third claim if three different kinds of subject-matter are covered by the claims) is linked to the first claim by the single purpose.

Where claims are made for subject-matter of different categories, the claims that characterize a substance, process and device (the first claims) are independent.

*Example.* "1. 1, 2, 3-trichlor-2-cyanopropan exhibiting an antibactericidal activity.

2. A method of obtaining 1, 2, 3-trichlor-2-cyanopropan distinguished by the fact that 3-chlor-2-cyanopropan is treated with gaseous chlorine under the irradiation of light is a visible part of the spectrum.

3. A method as defined in claim 2 distinguished by the fact that the irradiation is exercised with light which has a wavelength of between 3000 and 5000 Å."

Dependent claims serve to extend and specify the features contained in the independent claims and must be drafted as in a usual multiclaim application characterizing unitary subject-matter, i. e. they must be subordinated to corresponding main claims and must be set out in corresponding order.

83. A claim for a supplementary invention must be drafted in the following manner:

— the title of the supplementary invention is derived from the claims for the basic invention;

— the number of the main inventor's certificate or patent is shown instead of the list of limiting parameters, with the words "as defined in" before this number;

— the number of the inventor's certificate or patent is followed by the feature of the subject-matter of the supplementary invention corresponding to the improvement over the main invention;

— after the subject-matter of the supplementary invention the distinctive features that characterize the improvement of the main invention should be shown.

*Example.* "A machine whereby seedlings in pots as defined in inventor's certificate No. 300016 are pricked out distinguished by the fact that, with the purpose of improving the firmness of the soil around the pots at the moment of pricking into a furrow, the wickerwork of the baskets is manufactured such that it will be resilient."

84. When drafting the application for new chemical substances, it is necessary to take into account the fact that chemical substances obtained by a chemical means are recognized as inventions provided:

— they have an entirely new chemical structure<sup>10</sup>. The useful results of such substances should consist of the useful properties;

— their chemical structure relates to a modified known structure (for example, to homologous substances and isomers of known substances). The useful results of such substances should consist of the useful properties which have been found and which are not inherent in the known structure or the intensification of known properties of this structure or of other advantages (for example, a weakening of toxicity, substitution of deficient substances, etc.) and also of adding to the various means for the treatment of a living organism.

Where the subject-matter of the invention consists of a group (line) of substances described by a common structural formula and their method of production, the name of the substance and its purpose should be shown in the title of the invention. For example:

"Derivatives of amine and antraquinontriazols for dyeing synthetic polyamide fibers and a process for their production" (see also Example 9 in the Annex<sup>11</sup>).

In the description of an invention relating to a new chemical substance (a group or line of substances characterized by a single, common structural formula), a given substance should be characterized by a name selected according to one of the nomenclatures adopted in chemistry (for example, the Geneva nomenclature), by empirical or structural formulas proved according to known methods, by physical and chemical constants and by useful properties which allow the substance (or group) to be used for a specific purpose; there should also be

<sup>10</sup> Substances of a new class, i. e. substances containing a new type of bonds between atoms or a new combination of known bonds, constitute substances with an entirely new chemical structure. For the determination of the novelty of a type of bond, the essential elements are both an electronic structure of bonds and the type and number of atoms of elements that constitute these bonds.

<sup>11</sup> The Annexes are not published here.

an indication of a method of obtaining or synthesizing the new substance for the first time, its field of use, and examples confirming the fact that specific samples of the group (or line) claimed, with specific forms of radicals, have been obtained, together with a description of the properties of those samples, for confirmation of their identity (the necessary data should be shown in the form of a table).

In addition to the claim relating to the features of a new substance, a claim relating to the process for obtaining it may be included in the claims provided that the process is new (and if a new device is required for its realization), provided that this subject-matter is included in the description of the invention and that it satisfied the conditions of unity of invention specified in Article 82 of these Instructions.

The following features should be included in the claims which characterize the chemical substance itself: the name of the chemical substance selected according to one of the nomenclatures adopted in chemistry, the structural formula, including the interpretation of radicals if a group (or line) of substances is claimed, and the specific purpose of the substance (group).

If a substance is synthesized with a substantially new structure, the purpose of this substance may only be mentioned in the description (see the claims in Example No. 9<sup>12</sup>).

**85.** When drafting an application for biologically-active chemical substances synthesized for the first time according to a chemical process and which reveal a pharmacological activity, a conclusion of the applicant organization should be attached to the application which confirms the biological activity of the chemical substance mentioned in the description. The following minimum information should be given in the conclusion:

- an account of the biological activity of the substance (or group), for example: "the substance shows a bloodforming activity";
- a quantitative assessment of the biological activity;
- an estimation of the toxicity of the substance (or group);
- results of tests carried out with a view to checking the biological activity of the substance (or group);
- data confirming the useful result.

For the purposes of the State scientific and technical examination, a Soviet applicant should also attach a certificate of registration of a new, biologically-active chemical substance with a special body responsible for the testing and registration procedure for biologically-active substances. When the applicant organization has no opportunity of making the necessary tests of the biological activity of the chemical compound, a document from the said body should be attached which contains the information on the tests carried out by it, and attesting the registration of a new, biologically-active chemical compound.

**86.** When drafting the application for a strain of microorganism, the description should indicate its name, written in the Roman alphabet, its number in the collection, the location

of the collection, the useful substance it produces or the purpose for which it is used if it does not produce a useful substance, and also give a detailed account of its morphological, physiological (and cultural) and other properties which allow the type of the strain to be determined and characterize it as a new strain that has not been described previously.

The account of morphological and physiological properties is compulsory for all types of strains of microorganisms. Other characteristics — the activity of the strain, its antagonistic properties, etc. — should be mentioned in the description if they are of significant importance.

A process for obtaining such a strain of microorganism and a spectrogram of the substance produced by that strain, provided that the substance was not known, should be included in the description of the invention.

The activity of the strain of microorganism and the output of the useful substance produced by it should be indicated in comparison with analogous characteristics of other strains of microorganisms already known, in order to show the advantages of the strain to which the application relates.

When drafting the description of the invention relating to a strain of microorganism, the following should be included: the biochemical activity of a known strain, under "Characteristics of Prototype;" an account of the strain based on its morphological, physiological and other features, under "Nature of Invention;" an example of the use of the strain for a given purpose (medium, conditions of cultivation, output and characteristics of a substance produced, etc.), under "Examples of Specific Embodiments."

**87.** The application file for new medicinal, flavoring and nutritional substances, cosmetics, prophylactic and diagnostic processes and processes for the treatment of people and animals should contain information on the achievement of the purpose of the invention, as well as data on toxicity, the properties of the substance, the suitable dosage, contra-indications or other limitations, etc.

**88.** The description accompanying the claims should be typed on one side of sheets of smooth white paper measuring 21 x 29.7 cm. in one-and-a-half spacing, using type with a minimum capital letter height of 4 mm. and a minimum small letter height of 3 mm. All the copies of the description accompanying the claims should be typed clearly in black type.

The minimum dimensions of the margins on the sheets containing the description and the claims should be as follows:

— upper margin of the first sheet of the description and claims	— 8 cm.
— upper margin of subsequent sheets	— 2 cm.
— left-hand margin	— 2.5 cm.
— right-hand margin	— 2 cm.
— lower margin	— 2 cm.

**89.** The sheets of the description accompanying the claims should be numbered with Arabic numerals from the first to the last inclusive. The page number should be written in the middle of the upper margin of each sheet.

<sup>12</sup> This Example is not published here.

90. The description should be typed without corrections or alterations. The sheets should not be crumpled, folded or damaged in any way, and should not contain cancellations, erasures or additions. Exceptions to this rule may be granted in special cases if the corrections do not affect the clarity of the description, change its basic contents or cause any doubts, and if copies can still be made.

91. There should be no drawings or diagrams either in the text or in the margins of the description. Chemical, mathematical and other formulas may only be inserted if they are necessary for the explanation of the nature of the invention. All letters used in mathematical formulas should be accompanied by a legend.

92. Units of measurement should be designated in accordance with applicable State standards (GOST). Use of the designations in the International System of Units (GOST 9867-61) is recommended. An explanation of the units used in the text should be given.

93. No abbreviations may be used other than the conventional ones such as "i. e." or "etc."

94. The application file should not contain anything contrary to socialist morality and public order. The use of derogatory expressions regarding the authenticity of the titles of protection and other documents of third parties, and the quality of their technical solutions, is prohibited (ordinary comparisons with known technical solutions are not considered as such to be derogatory expressions).

The application should not contain statements and expressions that do not relate to a proposed solution and are not specifically necessary.

95. Conventional designations of marks, types, series, articles or substances may not be used in the description without explanation.

96. The terms used by the party drafting the application should correspond to the accepted terms used in scientific and technical literature or in the terminological handbooks of the USSR Academy of Science. Colloquial terms and terms that are not accepted in literature may not be used.

When terms are used that are not yet widely accepted in literature, their meaning should be explained when they are used for the first time.

97. In drafting the application, unity of terminology should be strictly observed, that is, the same details and assemblies of parts of a device, operations in a process, and ingredients of a substance, as well as units of measurement and conventional signs, must be designated in the same manner throughout the text of the description. The same terms should not be used for different details, assemblies of parts, processes or ingredients.

98. In descriptions of processes, the words "temperature," "pressure," etc. may be omitted from the text if their value is indicated.

#### Example

The process takes place at a temperature of 150 to 200° C.

#### Permitted

The process takes place at 150 to 200° C.

99. Foreign words and expressions should be used only when there are no equivalent Russian terms.

For example, the use of such terms as "voltaic arc," and "Foucault currents" is not recommended. The correct terms are "electric arc" and "eddy currents."

The names of foreign enterprises should not be used to designate machine-tools, devices, articles and products. Such names should be replaced by a technological or structural designation.

100. The Latin denominations of substances, strains of microorganisms, etc., should be clearly written in black ink.

101. When writing the names of chemical compounds, an indication should be given of the brackets to be used (round or square) and of the manner in which the name should be written (in one word or with hyphens).

The bonds between elements and radicals should be clearly indicated in complex chemical formulas.

102. When indicating the presence of an element in a substance as a percentage, the sign "% " should be placed after a numeral, but not after a symbol. If there are many ingredients, the percentage sign should be placed before the list of ingredients and separated from the latter by a colon.

#### Examples:

- |  |                  |
|--|------------------|
| (a) Cr:                                  | 30 %             |
| (b) the composition of the substance, %: | Cr 30, Mn 15;    |
| (c) determined, %:                       | P 12.10, N 5.30; |
| (d) calculated, %:                       | P 12.15, N 5.30. |

103. Mathematical and chemical formulas appearing in the text of the description should be legible. Mixed presentation of the formulas (typed and written) is not permitted.

104. Division of mathematical formulas is permitted only at signs.

All letters in the formulas should be explained and marked. An explanation of the formula should be put down in columns, with a semicolon at the end of each line. The explanations of letters should be given in the order in which they are used in the formula.

#### Example:

$$\alpha = \alpha_1 \pm (B - A) \frac{\sin Z_1}{\sin Z_2} + (B - C) \frac{\sin Z_1}{\sin Z_3},$$

where  $\alpha_1$  — azimuth of a known direction on a day surface;

A, B, C — measured angles;

$Z_1, Z_2, Z_3$  — measured zenith length of normals.

105. Mathematical signs such as ">," "<," " $\infty$ ," and "=" should be used in mathematical formulas only; in the text they should be written out (more, less, about, etc.). The sign " $\div$ " (from ... to) may be used to designate intervals between positive values.

In other cases the words "from" and "to" should be used.

106. Tables should be included in the description where they illustrate the achievement of the purpose mentioned in the description and the advantages of the invention more clearly than in the text, and where this makes it possible to save paper. If a table occupies a whole page, that page should be numbered in sequence with the pages of the text of the description.

If several tables are included in the description, the word "Table" and the appropriate number (1, 2, etc. [in Arabic numerals]) should be written in the top right-hand corner of the table; and the sign "No." is not written in. If there is only one table, the word "Table" should be omitted.

A subject title should appear at the head of the table to explain what is contained or represented in it.

107. The description of the invention for the purposes of an inventor's certificate or patent should be redrafted, if necessary, by the applicant organization on receipt of a favorable decision concerning the application, in accordance with the claims established on the basis of the State scientific and technical examination and in accordance with the requirements of these Instructions; this would occur, for instance, where the claims were changed in relation to those contained in the application.

#### IV. Requirements relating to Graphic Material Illustrating the Description

108. Graphic material (drawings, plans, diagrams, pictures, etc.) attached to the text of the description of the invention should be strictly compatible with the text of the description and should give a distinct image of the subject-matter of the invention.

Every graphic representation must be numbered as a figure (Figure 1, Figure 2, etc.), no matter what kind of representation is involved (drawing, plan, diagram, picture, etc.), and in numerical order following the order in which they are mentioned in the text of the description.

109. Graphic material must be composed of black lines on tracing-paper or thick, smooth white paper. The second and third copies may be submitted in the form of copies or photocopies on a light background. The size of sheets should be 21 x 29.7 cm. The minimum margins of each sheet of graphic material should be as follows: upper and left-hand margin - 2.5 cm., right-hand margin - 1.5 cm. and lower margin - 1 cm.

A blank space should be left in the lower left-hand corner of each sheet of graphic material for official inscriptions by VNIIGPE and ZNIPI<sup>13</sup>.

In the top right-hand corner of each sheet of graphic material there should appear an abbreviated title of the invention, the date of filing the application, the signature of the director of a patent department (or bureau of inventors and rationalizers), and that of the inventor or joint inventors.

<sup>13</sup> Respectively, the State Institute of Scientific Research and Expertise, and the Central Institute for Patent Information.

110. Several drawings may be placed on one sheet, but they should be separated from one another. If drawings appearing on several sheets constitute a single drawing, the sheets should be arranged in such a way that a complete drawing may be composed without omitting any part of any drawing shown on different sheets.

Each element of a drawing should be shown in proportion to the other elements, except where a difference of proportion is necessary for a clearer understanding of the invention.

111. The scale of drawings and the clarity of their graphic representation should be such that all the details are readily discernible when they are photo-reproduced in  $\frac{2}{3}$  linear reduction.

112. Secondary details not mentioned in the text of the description should not be included in the drawings. However, the number and the detail of the drawings should be sufficient for the nature of the proposal embodied in the application to be understood.

The submission of working drawings is not permitted.

113. The drawings should be executed in a linear scale according to the rules of technical drawing, on one or more sheets, using lines of equal thickness along all their length, without shading or coloring. The lines of the drawing should be drawn in black or blue India ink and should be sufficiently thick, dark, clear and reproducible. In exceptional cases, when the scale is shown in the drawing, it may be shown graphically.

The subject of the drawing should be represented in flat projections (giving different views, cuts and sections); if necessary, these drawings may be supplemented with an axonometric projection in the interests of clarity.

114. Sections should be cross-hatched with lines not less than 2 mm. apart. The hatching should not obscure reference designations and main lines. Capital letters of the Russian alphabet should be used to designate cuts and sections — for every cut or section, when there is only one secant plane, the same letter should be used twice, for example, "A - A," "B - B," etc.; the Greek alphabet should be used to designate angles, and the Latin alphabet to designate portions of a part, assembly of parts or device.

Cuts and sections of portions of parts and assemblies of parts should not be shown without an indication of the part of the main drawing to which they correspond; the drawing showing a section or cut should be numbered with the numeral following that of the drawing in which the cut or section has been made.

115. There should be no inscriptions, explanations, etc., on the drawings other than the name of the invention and the signatures.

All the data explaining a drawing should appear in the text of the description.

Exceptionally, brief explanations may be given, for example, "water," "vapor," "open," "closed," "section along A - A," etc., in the drawings for the better understanding of the object depicted.

116. A general view of the device (design) or the part (component of the device) which constitutes the subject-matter of the invention should be shown in one of the drawings.

Separate projections, parts and assemblies of parts of the device may be shown on the same sheet or on other sheets. The drawings should be arranged on the sheet in such a way that it may be filled as much as possible and the drawings may be studied in a vertical position, that is, the short sides of a sheet should be at the top and bottom.

117. Dimensions should not be indicated on the drawings. If they are essential, they should be indicated in the description.

118. Assemblies of parts and parts shown in the drawing should be designated with the same Arabic numerals as in the description, in the order in which they are mentioned in the text of the description. When the same part or assembly of parts appears in several drawings, it should be designated with the same numeral. The drawings should not contain any numerical or other designations that are unnecessary or are not mentioned in the text of the description.

119. Numerical designations of parts and assemblies of parts or letter-designations of cuts and sections should, in principle, be outside the limits of the corresponding drawing and connected to the parts to which they relate by a straight line, which should be thinner than the lines of the drawing.

These additional lines should terminate with a point at the inner end and a horizontal line (shelf) at the outer end, on which the numerical designation is written.

120. Numerical designations should have sufficient space between themselves and between them and the lines of a figure for a changed numerical designation to be inserted alongside when corrections are made.

In certain cases, numerical designations may be written inside the limits of a depicted device (for example, when the indication line would otherwise have to cross several portions or parts or hatched areas, whereas there is sufficient blank space inside the drawing).

121. Alphanumeric designations should be clear and accurate. The thickness of the lines of letters and numerals should correspond to the thickness of the lines of the drawing or diagram; the size of numerals and letters should not be less than 5 mm.

122. Diagrams need not be drawn to scale; the actual spatial arrangement of components of devices (plant) should be shown approximately. Diagrams should be drawn compactly, but not to the detriment of clarity and ease of reading.

There should be as few breaks and crossings as possible in the indication lines of the diagrams.

When drawing diagrams, the conventional graphic designations established by the Unified System of Design Documentation should be used. These conventional designations should not be explained in the diagrams. Non-standard graphic designations in the diagrams should be explained.

One kind of diagram may show certain elements of another kind of diagram when the latter has a direct influence upon the functions of the former (for example, mechanical or hydraulic elements may be shown in an electrical diagram).

123. Sketches should be schematic in character and simple in execution. They should be attached to the description only when it is impossible to illustrate this description with drawings or diagrams (for example, a stand for keeping animals in a given position where it is necessary to show the position of an animal). The sketch should be clear enough for a copy to be made and attached to the description for an inventor's certificate (or patent).

124. Photographs should be submitted only to supplement other graphic material. In exceptional cases photographs may be submitted as basic graphic material, for example when it is necessary to show the stages of a surgical operation. In such a case the picture must be clear.

The size of photographs should not exceed the prescribed dimensions of the sheets containing drawings or graphic material. Small photographs should be carefully pasted onto sheets of white paper and signed by the inventor.

125. When graphs are included in the text of the description, the meanings of the values of the ordinates and abscissae should be indicated along the corresponding axes, in the interests of clarity. The inscriptions should be made parallel to, and in the middle of, the respective axes.

Inscriptions relating to curves and points should only be made on the graph itself if they are few and brief. The inscriptions should be replaced by designations which should be interpreted in the text of the description.

The curves of a graph should be drawn clearly and their lines should be thicker than the lines of the coordinates.

Graphs should not contain any corrections, cancellations or erasures that would affect the clearness of the lines and make the graphs unsuitable for copying.

Sheets containing graphic material should not be folded, crumpled or torn. For the purposes of mailing, the sheets should be packed in such a way that the graphic material cannot be damaged.

#### V. Requirements concerning the Finding as to Novelty, Distinguishing Essential Elements and Useful Results of the Technical Solution

126. The finding as to novelty, distinguishing essential elements and useful results of the technical solution in respect of which the application is filed, which should be attached to the said application, should contain the following basic information:

— the results of the patent search performed at the time of the disclosure of the invention and the filing of the application, including data on the novelty of the invention;

— the possible fields in which the invention could be utilized in the national economy;

— the expected technical, economic or other effects of the use of the invention.

127. The information on the patent search performed should reflect the patent documentation studied by the applicant (Soviet and foreign inventors' certificates, patents, published applications or extracts from such applications, etc.), as well as scientific and technical literature directly related to the subject-matter in respect of which the application is made (books, magazines, published reports, dissertations, prospectuses, catalogues, etc.), and should clearly identify the prototype of the invention chosen by the applicant, reflect the results of comparison of the prototype and the subject-matter in respect of which the application is made in terms of distinguishing essential elements and useful results obtained, and define the nature of the invention.

128. The information on the patent search performed should be represented as a certificate on the examination of the subject-matter in respect of which the application is made, in the form indicated in Annex 4<sup>14</sup>.

*In Column 1 of the certificate ("Name")*, the name of the subject-matter of the application should be given; it must be the same as the title of the invention mentioned in the application for the grant of an inventor's certificate. The name chosen should preferably correspond as closely as possible to the headings of the International Patent Classification, which are listed in column 4.

The synonyms under which the subject-matter of the application may be found in foreign literature and patent documentation should be shown in addition to the specific name.

*In Column 2 of the certificate ("Essential features of the subject of the application")*, all the essential features of the subject-matter (see Article 72 of these Instructions) should be mentioned; these should correspond to the features shown in the claims drafted by the inventors and included in the application concerning the invention.

*In Column 3 of the certificate ("Countries")*, a list should be given of all the countries in respect of which the patent documentation has been examined.

The search for analogous patents should, in principle, be made in the patent documentation at least of the USSR, the United Kingdom, the United States of America, France, Germany (up to 1945), the Federal Republic of Germany, Switzerland and Japan.

The examination of patent documentation should begin with the descriptions of inventions relating to inventors' certificates and patents granted in the USSR. Thereafter the patent documentation of the countries occupying a leading place in the field of technology to which the claimed invention relates should be examined.

If the claimed invention is intended for patenting abroad, in addition to the patent files of the countries mentioned, the patent files of all the countries in which the invention is to be patented should be examined.

For the examination of national patent files, the collections of ZNIPI "Inventions abroad", reference journals and Patent Gazettes should be used when no descriptions or claims

relating to a given subject-matter are obtainable in the industry or in the national files available to an organization or enterprise. In such cases the source of information should be indicated in Column 3 according to the rules of reference to literature (title, author, publisher, place and year of publication). A analogous invention found in these sources of analytical information and publication media should, in principle, be checked according to all the information obtainable from the respective source. To this end, a copy of the description of the invention to which the patent or inventor's certificate relates should be ordered from the organization with complete patent files at its disposal.

When searching for analogous inventions, use should be made of the reports on patent and technical searches made by research workers at all the stages of the development of technical solutions, including the development of a problem according to the plan, and carried out in compliance with the Instructions on making a patent search at all the stages of research, development, testing and evaluation approved by the State Committee.

*In Column 4, "National classification index,"* the classification of the invention claimed should be entered according to the International Patent Classification.

If the national classification only is accepted in a given country then the classification of the subject-matter claimed should be entered according to the national classification in this Column.

The classification, under the Universal Decimal Classification, of the book, magazine or other source of scientific and technical literature, should be entered if it is shown in the title-sheet of the description relating to the inventor's certificate or patent.

*In Column 5, "List of materials consulted,"* the numbers of the inventor's certificates or patents with which the search began and ended should be given for every element of the classification of the invention claimed.

The search for analogous subject-matter should, as a rule, be made in the patent files for the 50 years prior to the moment of drafting the application. For new fields of technology the search should be made in the patent files existing from the beginning of publication of descriptions and claims relating to such fields of technology.

When the national and industrial patent files and the files of organizations that are used are incomplete, it is permissible, as an exceptional measure, to make the search in the files available prior to their updating (during a period of three years); for this purpose the searcher is obliged to use all the descriptions of national inventions, the ZNIPI "Inventions abroad" collections and reference journals containing summaries of the descriptions of inventions. In all such cases the applicant should give the reasons for which the search made in the certificate was incomplete.

However, regardless of the scope of the patent search, the prototype should be described, a comparative analysis of the features of the subject-matter claimed and the prototype should be made, and the distinctive features of the invention claimed should be shown. When drafting applications con-

<sup>14</sup> The Annexes are not published here.

cerning inventions intended for patenting abroad the search for analogous subject-matter should be made in the files covering the previous 50 years.

The sources of non-patent scientific and technical information (books, journals, catalogues) in which technical solutions analogous to the one applied for have been discovered should also be mentioned in this Column.

*In Column 6, "Titles of analogous subject-matter revealed,"* the titles of the analogous subject-matter revealed as a result of the examination of the patent documentation should be listed (for the determination of analogous subject-matter, see Article 48 of these Instructions).

With the title of all analogous subject-matter, bibliographic data should be mentioned that would make it possible to determine the source of information in which that analogous subject-matter was described (for a book, its title, the name of its author, the place and year of its publication, its number of pages; for a patent or inventor's certificate, the country, the number of the inventor's certificate or patent, its classification according to the international or national patent classification).

*In Column 7, "Features of prototype,"* the characteristics of the prototype chosen by the applicant from the analogous subject-matter revealed, i. e., the most similar analogous subject-matter, should be indicated. As a rule, that subject-matter should be chosen from the revealed analogous subject-matter that is characterized by the greatest number of features identical with, or technically equivalent to, the features of the subject-matter claimed or that is similar in respect of the most important feature or features.

The prototype should be identified by the features (including the title) identical with or technically equivalent to the features of the subject-matter claimed, in such a way as to show the technical nature of the prototype and the purpose of the invention. Data on the sources containing the information on the prototype should also be mentioned.

*In Column 8, "Essential features of the subject-matter claimed that are shared by the features of the prototype,"* all the essential features of the subject-matter claimed that are similar (identical or equivalent) to the revealed features of the prototype, as listed in Column 7, should be indicated. This similarity of features should be determined on the basis of a comparative analysis of the subject-matter claimed and the prototype, taking into account the purpose of the invention, which is the main criterion of the importance of the features.

*In Column 9, "Distinctive features of the subject-matter claimed,"* the distinctive features of the subject-matter claimed should be indicated, that is, such distinctive features as do not coincide with any identical or equivalent feature among those of the prototype. These new features distinguish the subject-matter claimed from the prototype. Their importance should also be determined by reference to their importance to the achievement of the purpose of the invention, that is, its useful results.

*In Column 10, "Useful Results,"* the useful results obtained through the use of the subject-matter that has a new set of essential features should be indicated, that is, the known

essential features listed in Column 8 and the new features mentioned in Column 9.

It should be taken into account that the useful results mean the enhanced benefits that society gains through the utilization of the invention in comparison with the results obtained through the use of what existed before (in this case, in comparison with the prototype mentioned).

The certificate should be signed by the director of a patent department, or bureau of inventors and rationalizers and all the joint inventors of the invention.

**129.** The information on possible fields for the use of the proposed subject-matter in the national economy should contain the following data:

— a specific field and related or adjacent fields of the national economy in which the subject-matter claimed could be used;

— known subject-matter for which the subject-matter claimed could be substituted as being more advanced;

— a program and tentative period of work necessary for the subject-matter claimed to be adapted for industrial use (with the indication of the plan — State, agency plan, etc. — in which the work is incorporated).

**130.** Information on the expected technical, economic or other effects of the use of the subject-matter claimed should include the following data:

— technical and other advantages of the subject-matter claimed in comparison with known subject-matter including the most advanced technical solution, chosen as a prototype;

— an expected economic or other result which could be obtained through the use of the invention;

— the possible scope of the use of the subject-matter in the national economy, in socio-cultural development or in the defense of the country;

— the overall economic effect (preferably in financial terms) that could be obtained through maximum use of the invention.

Under this heading, the sources of the data mentioned should be indicated, namely, the results of tests on a sample or pilot series, experiments, calculations and statistical data, etc.

The finding as to novelty, distinguishing essential elements and useful results of the technical solution should be approved by the director of the organization and sealed.

**131.** If the inventor or joint inventors of the invention act as the applicant or applicants the certificate on the examination of the subject-matter claimed in relation to patent and scientific and technical literature need not necessarily be included in the application file.

#### VI. Requirements concerning the Certificate on the Creative Participation of each Joint Inventor in the Making of the Invention

**132.** A certificate containing specific data on the creative participation of each joint inventor in the making of the invention, in the following form, should be attached to the application concerning an invention made by several inventors:

### CERTIFICATE

on the creative participation of each joint inventor in the making of the invention \_\_\_\_\_

(title of invention)

Applicant: \_\_\_\_\_

(complete name of the enterprise, institution, or organization submitting the application concerning the invention)

No.	Family name, first name, patronymic	The nature of the participation in making the invention, according to the features of the subject-matter	Agreement on distribution of remuneration (in %)
-----	-------------------------------------	--	--

When the application is submitted by the inventors themselves, the line "Applicant" should not be in (a dash should be inserted, however).

In the Column "family name, first name, and patronymic," all the joint inventors listed in the application for the grant of the inventor's certificate or patent should be mentioned.

In the Column "nature of the participation in making the invention, according to the features of the subject-matter," the particular kind of participation on the part of a given joint inventor in the creative work of making the invention, and in forming a definite feature<sup>15</sup>, should be mentioned.

If it is impossible to indicate exactly which of the features listed in the claims was developed by a given joint inventor the part of the creative work performed by that joint inventor should be indicated (for example, "developed theoretical bases of a parameter," "confirmed with experiments," "developed the shape of a driving element," etc.).

The certificate should be signed by all the joint inventors (when the application is filed by the joint inventors of the invention directly with the State Committee, or through the local branch of the All-Union Society of Inventors and Rationalizers, or through an organization) or by the director of the organization and the joint inventors when the application is filed by the organization.

The signature of the director should be sealed.

#### VII. Requirements regarding other Materials Illustrating an Alleged Invention

133. When necessary (for example, for confirming the usefulness of the invention), a report on the trials of the invention claimed, certified and signed according to the procedure established in a given organization, should be attached to the application file.

<sup>15</sup> According to Section 4 of the Statute on Discoveries, Inventions and Rationalization Proposals, persons who have provided the inventor with technical assistance only (preparing drawings or models, making calculations, carrying out experiments, drawings up documents, etc.) are not recognized as joint inventors.

The report on the trials should contain data on the place and time of the trials, the name of the organization that conducted the trials, the description of a model, confirming that it has the same features as the subject-matter claimed, quantitative test parameters (efficiency and productivity ratings, accuracy of finishing, etc.), confirming the data on the technical, economic and other effects mentioned in the description of the invention, and an indication of the number of objects (or hectares) used for the trials.

In the report on trials relating to a substance, the possibility of its production should be confirmed, and information should be given on specific samples of the substance concerned, showing that they have the properties that ensure the achievement of the purpose stated in the description and claims.

The ratio of ingredients of specific samples of the substance should be within the range indicated in the claims, including the extreme values.

134. Within two months from the date of the acceptance for examination of the application for the grant of an inventor's certificate or patent, the applicant has the right to supplement or correct the application file submitted.

If the supplementary material changes the nature of the invention claimed, it should be filed by the applicant as an independent application.

Changes in the claims may be made by the applicant at any stage in the examination of the application; such changes may relate to either an extension or a restriction of the claims appearing in the application for the grant of an inventor's certificate, and only to a restriction of the claims in the case of an application for the grant of a patent.

If the applicant changes the claims within the limits of the application originally filed, he should also change the text of the description in accordance with the changes in the text of the claims.

Supplementary material should be submitted in three copies, each signed in the same way as in the basic application file; the objections of the applicant to the refusal of the grant of an inventor's certificate or patent, or his disagreement concerning the established claims, should be submitted in two copies. When submitting such supplementary material and corrections, the number under which the application being supplemented is registered with the State Committee should be indicated.

All supplementary material and documents forwarded by the applicant after the filing of the application should meet the requirements of these Instructions.

135. With respect to an application filed by an organization with the indication of the inventors, all correspondence should be carried on by the organization. If, however, the organization believes, for any reason, that the continuation of the examination of the application is inexpedient, the inventor has the right to expound independently his arguments in favor of the novelty and usefulness of the technical solution, but all correspondence concerning the application should be carried on through the organization.

136. The documents not relating to a given application should not be attached to that application and should not be sent to the State Committee.

The following Annexes are attached to these Instructions<sup>16</sup>.

1. Form of certificate stating that the application has been accepted for examination;

<sup>16</sup> The Annexes are not published here.

2. Form of inventor's card;
3. Forms of applications for the grant of an inventor's certificate or patent;
4. Form of certificate of examination of the subject-matter claimed, with reference to patent, scientific and technical literature;
5. Examples for the drafting of descriptions of inventions.

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## LETTERS FROM CORRESPONDENTS

### Letter from Canada

Donald A. HILL \*











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**OBITUARY**

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**E. D. Hirsch Ballin**

1898-1975

Professor E. D. Hirsch Ballin, a well-known expert in international copyright circles, died on March 15, 1975.

His entire career was devoted to legal science. Born in Wiesbaden in 1898, he studied law at Munich, where his thesis, entitled *Das Recht aus der Erfindung*, received the highest of commendations. He began his professional career

as an attorney and notary, later turning to university teaching. He acquired Dutch nationality in 1948, and, among other things, was Professor of Copyright and Industrial Property Law at the University of Amsterdam from 1966 onwards.

Professor Hirsch Ballin's erudition, his constant desire for further research, his concern for the continuous defense of orthodox concepts in copyright and his many studies leave us with the memory of an eminent personality whose work made a rich contribution to law literature in the intellectual property field.

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**CALENDAR**

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**WIPO Meetings**

August 28 and 29, 1975 (Geneva) — Hague Union — Conference of Plenipotentiaries

September 17 to 19, 1975 (Geneva) — ICIREPAT — Plenary Committee (PLC)

September 22 and 23, 1975 (Geneva) — Trademark Registration Treaty (TRT) — Interim Advisory Committee

September 23 to 30, 1975 (Geneva) — WIPO Coordination Committee and Executive Committees of the Paris and Berne Unions — Ordinary Sessions; Assembly of the Nice Union (Extraordinary Session)

- October 1 to 3, 1975 (Geneva) — Scientific Discoveries — Committee of Experts
- October 1 to 3, 1975 (Geneva) — International Patent Classification (IPC) — Bureau
- October 6, 1975 (Geneva) — International Patent Classification (IPC) — Joint ad hoc Committee
- October 7 to 9, 1975 (Geneva) — International Patent Classification (IPC) — Assembly and Committee of Experts
- October 13 to 17, 1975 (Nairobi) — Conference on Industrial Property Laws of English-Speaking Africa — Committees of Experts (convened jointly with the Economic Commission for Africa of the United Nations)
- October 13 to 17, 1975 (Geneva) — ICIREPAT — Technical Committee for Search Systems (TCSS)
- October 20 to 24, 1975 (Washington) — ICIREPAT — Technical Committee for Standardization (TCST)
- October 27 to 31, 1975 (Mexico City) — Latin American and Caribbean Seminar on the Rights of Performers, Producers of Phonograms and Broadcasting Organizations  
(Meeting organized jointly with ILO and Unesco)
- October 27 to November 3, 1975 (Geneva) — Patent Cooperation Treaty (PCT) — Interim Committees
- November 3 to 7, 1975 (Geneva) — International Classification of Goods and Services for the Purposes of the Registration of Marks — Committee of Experts
- November 3 to 14, 1975 (Berne) — International Patent Classification (IPC) — Working Group II
- November 10 to 14, 1975 (Geneva) — Revision of the Model Law on Inventions — Working Group (3<sup>rd</sup> session)
- December 1 to 5, 1975 (Geneva) — International Protection of Appellations of Origin and Other Indications of Source — Committee of Experts
- December 1 to 12, 1975 (Munich) — International Patent Classification (IPC) — Working Group III
- December 8, 9 and 16, 1975 (Geneva) — International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations — Intergovernmental Committee — Ordinary Session (jointly organized with ILO and Unesco)
- December 10 to 12, 1975 (Geneva) — ICIREPAT — Technical Coordination Committee (TCC)
- December 10 to 16, 1975 (Geneva) — Executive Committee of the Berne Union (Extraordinary Session)
- December 15 to 19, 1975 (Geneva) — International Classification of the Figurative Elements of Marks — Provisional Committee of Experts
- December 15 to 22, 1975 (Geneva) — Revision of the Paris Convention for the Protection of Industrial Property — Group of Governmental Experts
- March 15 to 19, 1976 (Geneva) — WIPO Permanent Legal-Technical Program for the Acquisition by Developing Countries of Technology Related to Industrial Property — Permanent Committee (3<sup>rd</sup> session)
- September 27 to October 5, 1976 (Geneva) — WIPO General Assembly, Conference and Coordination Committee; Assemblies of the Paris, Madrid, Nice, Lisbon, Locarno, IPC and Berne Unions; Conferences of Representatives of the Paris, Nice and Berne Unions; Executive Committees of the Paris and Berne Unions; Council of the Lisbon Union — Ordinary Sessions
- March 14 to 18, 1977 (Geneva) — WIPO Permanent Legal-Technical Program for the Acquisition by Developing Countries of Technology Related to Industrial Property — Permanent Committee (4<sup>th</sup> session)
- September 26 to October 4, 1977 (Geneva) — WIPO Coordination Committee and Executive Committees of the Paris and Berne Unions — Ordinary Sessions

## UPOV Meetings

**Council:** October 7 to 10, 1975 — **Consultative Committee:** October 6 and 10, 1975 — **Technical Steering Committee:** November 6 and 7, 1975 — **Committee of Experts on International Cooperation in Examination:** November 4 and 5, 1975 — **Committee of Experts on the Interpretation and Revision of the Convention:** December 2 to 5, 1975; February 17 to 20, 1976

*Note:* All these meetings will take place in Geneva at the headquarters of UPOV

**Technical Working Parties:** for Forest Trees: August 19 and 20, 1975 (Hannover - Federal Republic of Germany); for Ornamental Plants: September 9 to 11, 1975 (Hornum - Denmark)

## Meetings of Other International Organizations concerned with Intellectual Property

- September 12 and 13, 1975 (Liège) — International League Against Unfair Competition — Study Meetings
- September 16 to 19, 1975 (Budapest) — International Federation of Musicians — Executive Committee
- September 17 to 20, 1975 (London) — Union of European Professional Patent Representatives — General Assembly
- September 22 to 24, 1975 (Basle) — Licensing Executives Society (LES) — International Conference
- October 1 to 3, 1975 (Berlin) — International Literary and Artistic Association — Working Session
- October 21 to 23, 1975 (Rijswijk) — International Patent Institute — Administrative Board
- November 17 to 26, 1975 (Paris) — United Nations Educational, Scientific and Cultural Organization (UNESCO) — Committee of Governmental Experts on the Double Taxation of Copyright Royalties
- November 17 to December 15, 1975 (Luxembourg) — General Secretariat of the Council of Ministers of the European Communities — Luxembourg Conference on the Community Patent
- December 17 to 19, 1975 (Rijswijk) — International Patent Institute — Administrative Board
- May 25 to June 1, 1976 (Tokyo) — International Publishers Association — Congress