IGE | IPI

Eidgenössisches Institut für Geistiges Eigentum
Institut Fédéral de la Propriété Intellectuelle
Istituto Federale della Proprietà Intellettuale
Swiss Federal Institute of Intellectual Property

Stauffacherstrasse 65/59 g | CH-3003 Berne
T +41 31 377 77 77
F +41 31 377 77 78
info@ipi.ch | www.ipi.ch

Information on the criteria of inventive step and sufficiency of disclosure (circular C. 8403)

Answers provided by:

Country : Switzerland
Office : Swiss Federal Institute of Intellectual Property

Contact :

Name : Beatrice Stirner
Title : Legal Adviser
E-mail. : Beatrice.Stirner@ipi.ch
Telephone : 031 377 72 63

Inventive Step

Provisions:

Art. 1 Federal Act on Patents for Inventions (PatA)[1]:
1 Patents for inventions are granted for new inventions applicable in industry.
2 Anything that is obvious having regard to the state of the art (Art. 7, para. 2) is not patentable as an invention.

Art. 7 PatA :
1 An invention is considered to be new if it does not form part of the state of the art.
2 The state of the art comprises everything made available to the public by means of a written or oral description, by use, or in any other way prior to the filing or priority date.

Art. 26 PatA:
1 The court shall, on application, declare the nullity of the patent if:
a. the subject-matter of the patent is not patentable under Articles 1, 1a, 1b and 2;
b. When the invention is not described in the patent specification in a manner sufficiently clear and precise for it to be carried out by a person skilled in the art

Under Swiss law, the Federal Institute of Intellectual Property does not examine if the invention is new or whether it is obvious having regard to the state of the art, Art. 59 para. 4 PatA. Novelty (Art. 1 para. 1 in relation to Articles 7, 7b, 7c or 7d PatA) or inventive step (Art. 1 para. 2 PatA) is examined by the courts, for example in favor of a civil action such as a request for a finding of nullity with respect to a patent (Art. 26 PatA). The court shall, on application, declare the nullity of the patent, among other hypotheses, if the subject-matter of the patent is not patentable under Article 1 (Art. 26 para. 1 a, PatA); or if the invention is not described in a manner for it to be carried out by a person skilled in the art (Art. 26 para. 1b, PatA).

[1] *Federal Act on Patents for Inventions (232.14) dated June 25, 1954 (Status as of January 1st, 2012), http://www.admin.ch/opc/fr/classified-compilation/19540108/index.html*

i) Definition of the term « a person skilled in the art »

A person skilled in the art is not a real individual but rather a hypothetical figure. This is the legal concept of a fictitious character. It needs to be developed on a case by case basis, according to the facts and based on the principles of jurisprudence. It represents the incarnation of a professional who is requested to carry out the subject-matter described in the patent or solve the corresponding problem.
In patent law there are three central facets to a person skilled in the art: the person's skill, his knowledge and his abilities. A person's skill can be found in the technical field in which the problem is posed. The Federal Tribunal has judged that a person skilled in the art is not necessarily a representation of an individual. His capacities and knowledge can, wherever appropriate, correspond to those of a team of specialists in various technical fields.
A person skilled in the art is someone who has received a good level of training and who is acquainted with the corresponding state of the art. This person is not an expert. Nor is he uneducated. He has an average knowledge of the required field. Furthermore, he is not immune to ideas that are usually considered to be preconceived in that field. If the problem posed involves a search for information in other technical fields, the person skilled in the art also has knowledge of those fields. .He has acquired knowledge during his training and practical activity. To sum up, the person skilled in the art, in his capacity as a fictitious character, has knowledge of the field that he was supposed to explore in order to solve the problem posed. He is endowed with the usual faculties of logic but does not possess intuition or the skills of deduction. He does not have any associate skills, nor is he creative.

ii) Methods applied to evaluate inventive step

The aim of the examination for inventive step is to assess whether the solution to the technical problem as proposed by the inventor is obvious with regard to the state of the art for a person skilled in the art. In other words it is a comparison or (qualitative) measurement of the gap between the state of the art and the invention. The state of the art is considered in its entirety as it existed at the time of the first filing, and all partial solutions and all specific works constituting the scope of the state of the art need to be taken into account. In principle, the scope of the state of the art is not subject to any other restriction. It is not necessary to assess if it is part of the real knowledge of specialists. However, retrospective appreciation thereof is prohibited, i.e. the enforceable state of the art is that which is accessible « prior to the application date or priority date» (implicit deduction from Art. 7 para. 2, PatA).

The « problem-solution» approach of the European Patent Office (EPO) forms the basis of Swiss doctrine used to assess inventive step. In this context, Switzerland adheres in principle to the jurisprudence of the EPO and does not move away from it without reason.

Principles of the examination of inventive step [2]:

1. Determination of the closest state of the art
The first step consists in determining objectively the closest state of the art, i.e. isolating the document that contains the largest number of characteristics in common with the invention. Elements that do not contribute either directly or indirectly to the technical character of an invention are not taken into account. It is prohibited to combine documents to define the closest state of the art.

2. Objective determination of the (residual) technical problem

[2] *Federal Tribunal of 18 July 2013, « Liquid collection device I + II », (sic) 2/2004, pg. 111 ss. (Annex)*

Stauffacherstrasse 65/59 g | CH-3003 Berne
T +41 31 377 77 77
F +41 31 377 77 78
info@ipi.ch | www.ipi.ch

The second step consists in objectively determining the technical problem that the invention solves. The patent and the state of the art are examined for differences with respect to their distinctive features. The residual technical problem is formulated once the technical effect of the distinctive characteristics has been identified. The aim of the technical problem, according to the problem-solution approach, is to link the closest state of the art and the invention. The problem that has been effectively solved is thus established in the light of the closest state of the art without, however, including the solution proposed by the invention which is to be assessed.

3. Moving from the technical problem to the solution

The third step involves appreciation of the intellectual journey that is objectively required of the person skilled in the art so that he can move from the problem to the solution. It is here that it is possible to ascertain if the invention thus examined has obvious regard to the state of the art. The evidence is established on the basis of documents that are contrary to the invention and indications that are contained therein. It is determined according to the « *could-would* » approach that is recommended by the Swiss Federal Tribunal and which is also applied by the EPO.

According to Swiss jurisprudence, it is necessary to examine whether, starting from the closest state of the art (first step) and possibly by arguing according to a second document, a person skilled in the art could have solved (the "could" approach") the objective problem (second step) with the aid of the usual resources at his disposal or according to an extraordinary development within his reach or even further by displaying little intellectual activity, on the basis of simple experiments with regard to what is done in the appropriate field of research. This « *could »* approach is supplemented by a « *would »* approach. According to the Swiss Federal Tribunal it is then necessary to examine whether the state of the art « contains information which would cause the person skilled in the art, when confronted by this technical problem, to modify or adapt the state of the art in order to arrive at the same result as the invention » (TF, (sic) 2004, p. 111 ss.).

To sum up, the « *could-would »* approach does not just examine whether the person skilled in the art could have carried out the invention (*could*) without any particular difficulty by exercising his current capacities but also if the state of the art would have effectively caused him to seek and find the solution proposed by the invention (*would*).

iii) Given the state of the art, the degree of inventiveness (obviousness) that is required to meet the requirement of inventive step

The claimed invention should not have obvious regard to the state of the art (Art. 7 para. 2 PatA).

In order to assess obviousness it is necessary to answer the question as to whether a person skilled in the art, who (fictitiously) has unlimited access to the state of the art, would have managed to establish a relation between the elements of the state of the art at his disposal and combine them effectively without any particular effort.

An indication of non-obviousness is the fact that it seems impossible to establish, either spontaneously or without creativity, any link between the information elements required for the invention. For no particular reason, information and documents belonging to technical fields that are foreign to the invention are not considered by the person skilled in the art. The documents and other information on the state of the art are not limited to a particular « category » when examining this question. No one could accept that one part of the state of the art should not be considered on the grounds that it is foreign to the technical field of the invention. The person skilled in the art may seek solutions in another technical field, according to the problem.

No particular rules apply when assessing« obviousness » in extremely specific technical fields such as biotechnology, for example.

Sufficiency of Disclosure

Provisions

Stauffacherstrasse 65/59 g | CH-3003 Berne
T +41 31 377 77 77
F +41 31 377 77 78
info@ipi.ch | www.ipi.ch

Art. 50 PatA
The invention must be described in the patent application in such a manner that it can be carried out by a person skilled in the art.

Art. 50a PatA
1 If an invention that relates to the manufacture or use of biological material cannot be sufficiently described, then the description must be completed by depositing a sample of the biological material and, in the description, by providing details of the essential characteristics of the biological material as well as a reference to the deposit.
2 If, in the case of an invention that relates to biological material as a product, the production process cannot be sufficiently described, then the description must be completed or replaced by depositing a sample of the biological material and, in the description, by a reference to the deposit.

Art. 55 b PatA
The abstract serves the sole purpose of providing technical information.

Art. 26 PatA[3]
1 The description starts with a title which consists of a clear and concise technical designation of the invention. The title does not contain any fanciful names.
The final title is determined automatically.
2 …(Repealed)
3 The introduction describes the invention in terms that allow the technical problem and its solution to be understood.
4 The description shall contain an enumeration of figures represented in the drawings and shall briefly indicate the contents of each figure.
5 It must contain at least one embodiment of the invention unless the former is disclosed sufficiently in another manner.
6, The description must explain how the subject-matter of the invention can be used industrially to the extent that it is not obvious.

i) Condition relating to sufficiency of disclosure

According to Article 50 of the PatA the invention must be disclosed in its entirety. In other terms it is possible to disclose the invention not only in the description or in the drawings but also in the claims if the latter were submitted on the date when the application was filed. Any supplement to the disclosure, in the form of additional claims, for example, is excluded. The disclosure must in any case be complete upon the filing date.

Article 50 of the PatA also stipulates that a person skilled in the art should be able to carry out the invention. The disclosure is considered to be sufficient when it appears plausible for a person possessing average professional knowledge of the specialized field in question to carry out the invention without unreasonable effort.

The patent abstract serves the sole purpose of providing technical information (Art. 55b PatA). Inexperienced applicants sometimes include part of the disclosure solely in the abstract. This defect needs to be corrected in the substantial examination. (**Directives for substantial examination of**

[3] *Ordinance relating to patent inventions (232.141) dated September 19, 1977 (Status as of September 1st 2014), http://www.admin.ch/opc/fr/classified-compilation/19770250/index.html*

national patent applications to the Swiss Federal Institute of Intellectual Property[4] cf. Ch. 4.2., pg. 31)**.**

ii) Condition on which claims must be based on the description

Cf. Ch. 4.2. Guidelines
Generally speaking, the definition of an invention appearing in a claim is not sufficient to disclose it. Claims that are formulated in extremely concrete terms are an exception, along with inventions that are easy to understand, e.g. devices that are easy to construct or compositions of known substances. The need to add indications in the description depends on the nature of the characteristics of the claims. In the majority of cases, if they are concrete or structural (e.g. temperature of a production method or a form of constitutive parts) it is not essential for them to be accompanied by an explanation. On the other hand, a concrete example is required in the description if they are abstract or functional.

Although Article. 26, para. 5, PatA does not expressly stipulate that the disclosure should include an example of an embodiment, the latter is often necessary if the disclosure is to be considered sufficient. It is enough to provide one example of an embodiment for all independent and dependent claims that include the described embodiment. It is also used as a basis for the disclosure of all embodiments in the other dependent claims provided that the modifications to the described example are obvious from the description.

The requirements of the disclosure depend upon the category of claim:

- The subject matter of the claim of a product is disclosed when a person skilled in the art is able to obtain or identify this product based on the technical pieces and his professional knowledge. Additional rules apply to applications in the field of chemistry (cf. Ch. 10.4, pg. 82 Guidelines) and biotechnology (cf. Ch.11.4, pg. 95 Guidelines).
- A claimed process is only disclosed if a person skilled in the art can understand and carry out critical steps on the basis of the technical pieces and his professional knowledge. The starting materials and the final product must be able to be recognized for a production method. In the case of a method of treatment it must be possible to recognize an initial and a final state.
- Claims of other categories (use and application) are equivalent claims, i.e. product or process, and must thus be treated accordingly.

iii) Condition relating to the written description

Cf. Ch. 4.2.1 and 4.2.2 Guidelines
In order to understand the disclosure, it is neither obligatory nor essential to describe the problem and its solution in explicit terms. Article 26, para. 3, PatA simply requires the invention to be described in the introduction (of the description) in terms that allow the technical problem and its solution to be understood. The text can also implicitly contain a definition of the problem that is to be solved. Strictly speaking, description should not be confused with disclosure. It is enough to provide a brief comment on the aim of the invention and the measures taken to achieve that aim. The introduction is in no way meant to be signify the first paragraph of the description; it includes the entire text up to the detailed explanations. Notifications are limited to passages that lack clarity with regard to concrete disclosure.

Definition of the invention in the description:
The claims define the inventions. As a result there is no stipulation for the description to include a definition of the invention. As a general rule, the applicant mentions the subject-matter of the invention in the introduction of the description. (e.g. «The invention relates to...»). However, this indication

[4] *Guidelines for substantial examination of national patents in the Swiss Federal Institute of Intellectual Property dated July 1st, 2011 (Status as of September 1st, 2014),*
https://www.ige.ch/fileadmin/user_upload/Juristische_Infos/f/dirpat.pdf

Eidgenössisches Institut für Geistiges Eigentum
Institut Fédéral de la Propriété Intellectuelle
Istituto Federale della Proprietà Intellettuale
Swiss Federal Institute of Intellectual Property
Stauffacherstrasse 65/59 g | CH-3003 Berne
T +41 31 377 77 77
F +41 31 377 77 78
info@ipi.ch | www.ipi.ch

should not be considered as a definition and there is no need to complete it, even with a reference to an independent claim. Yet it must not contradict the claims, for example, as far as the category of the claim is concerned. If it can be inferred from the text that the applicant seeks to provide a definition, this definition must be complete and must correspond in substance (but not in formulation) to the claim in question. If there is a doubt, the examiner can propose a reference to an independent claim.

References:

National legislation: https://www.ige.ch/fr/infos-juridiques/domaines-juridiques/brevets.html

Guidelines relating to patent examination: https://www.ige.ch/fr/infos-juridiques/domaines-juridiques/brevets.html

Annex:

Swiss Federal Tribunal dated July 18, 2013, « Liquid collection device I + II », (sic) 2/2004, pg. 111 ss.