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DIRECTORATE OF PATENTS, COMPUTER PROGRAMS AND TOPOGRAPHIES OF INTEGRATED CIRCUITS

March 31, 2024

Note C. 9199
Standing Committee on the Law of Patents¹
Brazil

**Information relating to the study on various aspects of the unity of invention, including
divisional application**

**Inputs for the preparation of documents to the 36th Session of the
Standing Committee on the Law of Patents**

The analysis on the unity of invention, including divisional application, is regulated in the Articles 22, 23, 26 to 28 of Brazilian Industrial Property Law No. 9,279, of May 14, 1996 (IP Law), and INPI Guidelines for Examination of Patent Applications, Block I, Paragraphs 3.98 to 3.143 (INPI Resolution No. 124 of December 04, 2013).

Next, we will discuss the legal and infralegal regulatory aspects of the condition of unit of invention and the division of patent applications in Brazil.

UNITY OF INVENTION

DEFINITION

According to Industrial Property Law – IP Law (Law No. 9,279 of May 14, 1996), the condition of **unity of invention** is provided for in Articles 22 (patent of invention) and 23 (utility model):

¹ The answers to this Note have been provided on behalf of Brazil by Brazilian National Institute of Industrial Property (INPI).



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Article 22 - An application for a patent of invention must refer to a single invention or to a group of inventions so interrelated as to comprise a single inventive concept.

Article 23 - An application for a utility model must refer to a single principal model that may include a plurality of distinct additional elements or structural or configurative variations, provided that technical-functional and corporeal unity of the object is maintained.

By “single inventive concept”, or unit of invention, it is understood that the various claimed inventions present a technical relationship between them, represented by one or more identical or corresponding special technical features for all the claimed inventions.

Whenever the application does not present unity of invention or technical-functional and corporeal unity the examiner must raise an objection based on Article 22 and 23 of the IP Law, respectively.

SPECIAL TECHNICAL FEATURES

The expression “special technical features” refers to the technical features that represent a contribution that the claimed invention makes in relation to the state of the art, interpreted on the basis of the Specification and Drawings, if any, and that are common or correlated to each one of the claimed inventions.

Once the special technical features have been identified for each of the inventions, it must be determined whether or not there is a technical relationship between the inventions conferred by said special technical features.

It is not necessary that the special technical features in each invention are the same. The required interrelationship may exist between corresponding special technical features. For example, in a given claim, the special technical feature that provides the product with resilience is a metal spring, whereas, in another claim, it is a rubber block.



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INTERRELATED ELEMENTS

Interrelated elements must be specially adapted to each other so that the patent application meets the condition of unity of invention. If such elements have several other applications and the aforementioned relationship constitutes just one among several possible ones, it is understood that there is no unity of invention.

As an example, let us consider a patent application containing a claim that refers to an anti-slip artificial grass and another that refers to a soccer ball manufactured with material especially suitable for this grass, which can also be used on other grasses. In this case, it is understood that there is no unity of invention, even though the ball has better performance on the aforementioned pitch.

CLAIMS AND UNITY OF INVENTION

Unity of invention must be preliminary assessed based on the independent claims of the patent application. In the case of lack of novelty or inventive step in an independent claim, the other dependent claims must be analyzed not only with regard to merit, but also with regard to the existence of a common inventive concept.

According to the INPI Guidelines, a patent application may contain more than one independent claim of the same category only if the claimed subject matter relates to:

- (i) a plurality of interrelated products;
- (ii) different uses of a product or equipment; or
- (iii) different sets of alternative and essential characteristics for carrying out the invention, linked by the same inventive concept.

A plurality of independent claims from different categories can also constitute a group of inventions interrelated to each other to form a single inventive concept. For example, let us consider a patent application containing an independent claim for a given product, an independent claim for a process specially adapted for the manufacture of said product and an independent



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claim for a use of said product. In this case, both product and process share a common special technical feature and therefore form a single inventive concept.

It should be noted that a manufacturing process and its product are not considered to lack unity of invention simply by virtue of the fact that the manufacturing process is not limited to the manufacture of the claimed product.

Another example similar to the previous one would be a patent application containing an independent claim for a given process and an independent claim for an apparatus or means specifically designed to carry out said process. In this case, the apparatus or means is specifically designed for carrying out the process if the apparatus or means is suitable for carrying out the process and thus a special technical feature links the claimed apparatus or means and the claimed process.

A third example that encompasses the previous two cases would be a patent application containing an independent claim for a given product, an independent claim for a process specially adapted for the manufacture of said product, and an independent claim for an apparatus or means specifically designed to carrying out this process.

Unity of invention may also be recognized in a patent application that contains claims relating to one or more different technical fields, as long as there is a common or corresponding “special technical feature” linking these claims. For instance, an application presents an independent claim relating to a polymer G, as well as another independent claim relating to an artificial grass consisting of polymer G, used on football pitches. In this case, despite its different technical fields, the patent application meets the condition of unity of invention, since polymer G is the common “special technical feature” linking these claims.

LACK OF UNIT OF INVENTION *A PRIORI* OR *A POSTERIORI*

The lack of unity of invention can be identified directly *a priori*, that is, considering the claims without carrying out a prior art search, or it can be visible only *a posteriori*, that is, after taking the prior art into consideration, constituted for the documents eventually presented in the patent application, as well as those collected during the search carried out.



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In an *a posteriori* unit of invention analysis, if one or more relevant prior art documents demonstrate that the special technical feature is already known, the Examiner must verify if there is another common special technical feature linking the independent claims.

In the technical examination, once the lack of unity of invention has been identified (*a priori*), the Patent Examiner will inform the Applicant about the different units of invention or interconnected and unified groups of inventions claimed in the patent application. The Applicant will be invited to modify the set claims, excluding the claims that are not related to the first unit of invention, as identified by the Examiner, based on Article 22 of the IP Law. The excluded subject matter may be presented in the form of one or more divisional applications.

If the Applicant presents convincing arguments for the fulfillment of the condition unity of invention, or the set of claims has been restricted to a single general inventive concept, the objection initially raised will be withdrawn and the examination will proceed based on the original set of claims as a whole. Otherwise, if the Applicant does not comply with the issued requirement or does not present convincing technical grounds to overcome the raised objection, the Examiner will reject the patent application based on the lack of unity of invention (Article 22 of IP Law).

If the patent application meets the condition of unity of invention *a priori*, the Examiner must carry out the prior art search based on the special technical feature of the independent claims. If such a feature is not known in the prior art, the application meets the condition of unity of invention *a posteriori*. Therefore, the Examiner must complement the search for the entire set of claims and subsequently proceed the examination of the patent application. On the other hand, if such a feature is known from the state of the art, the Examiner must assess whether the search carried out was sufficient to cover the claimed subject matter in the entire set of claims. If so, the Examiner must proceed with the examination of the patent application. If not, the application does not fulfill the condition of unit of invention *a posteriori*, and the Examiner must indicate the different inventive concepts or interconnected and unified groups of inventions claimed in the patent application. Then, the Examiner must carry out a prior art search, proceeding in the same way as in the case of the “*a priori* assessment”.



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INTERMEDIATE AND FINAL PRODUCTS

The condition of unity of invention is considered to be met in the context of intermediate and final products where:

(I) the intermediate and final products have the same essential structural element, i.e. their basic chemical structures are the same or their chemical structures are technically closely interrelated, the intermediate incorporating an essential structural element into the final product, and

(ii) the intermediate and final products are technically interrelated, i.e. the final product is manufactured directly from the intermediate or is separated from it by a small number of intermediates all containing the same essential structural element.

Unity of invention may also be present between intermediate and final products of which the structures are not known – for example, as between an intermediate having a known structure and a final product with unknown structure or as between an intermediate of unknown structure and a final product of unknown structure. In such cases, there should be sufficient evidence to lead one to conclude that the intermediate and final products are technically closely interrelated as, for example, when the intermediate contains the same essential element as the final product or incorporates an essential element into the final product.

Different intermediate products used in different processes for the preparation of the final product may be claimed provided that they have the same essential structural element. The intermediate and final products should not be separated, in the process leading from one to the other, by an intermediate which is not new.

Where different intermediates for different structural parts of the final product are claimed, unity should not be regarded as being present between the intermediates. If the intermediate and final products are families of compounds, each intermediate compound should correspond to a compound claimed in the family of the final products. However, some of the final products may have no corresponding compound in the family of the intermediate products, so the two families need not be absolutely congruent.



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If the inventive feature of the final product depends on the features of the intermediate product, then the patent application complies with the condition of unity of invention.

The mere fact that, besides the ability to be used to produce final products, the intermediates also exhibit other possible effects or activities should not prejudice unity of invention.

ALTERNATIVES – MARKUSH FORMULA

When the Markush Formula is for alternatives of chemical compounds, they should be regarded as being of a similar nature, provided that the following criteria are met::

- (i) all alternatives have a common property or activity, and
- (ii) a common structure is present, i.e. a significant structural element is shared by all of the alternatives, or in cases where common structure cannot be the criteria that brings unity of invention, all alternatives belong to a recognized class of chemical compounds in the art to which the invention pertains.

Checking whether a group of inventions is interconnected to form a single general inventive concept must be done regardless of whether the inventions are claimed in separate claims or in the form of alternatives contained in a single claim.

Alternative forms of an invention may be claimed either in a plurality of independent claims or in a single claim. A claim, whether independent or dependent, may refer to alternatives, as long as the number and presentation of the alternatives in a single claim do not make the claim obscure or difficult to understand, and as long as the claim fulfills the condition of unit of invention, for example, a motor characterized by gear A manufactured with material X or Y or Z.

In the case of a single claim, the presentation of the alternatives of the invention as independent forms may not be immediately evident. In either case, the same criteria are applied in deciding whether or not there is unity of invention, and lack of unity of invention may therefore also exist within a single claim.



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INDIVIDUAL FEATURES IN A CLAIM

The condition of unit of invention is met when the claim consists of a combination of individual features that share a technical interrelationship.

In cases where a technical interrelationship between the individual features of the claim does not exist, but is a mere juxtaposition of elements, it is not possible to raise an objection of lack of unity of invention.

DEPENDENT CLAIMS

No objection on the grounds of lack of unity of invention *a priori* is justifiable in relation to a dependent claim, based on the general concept that they have in common the subject matter of the independent claim, which is also contained in the dependent claim.

When an independent claim is not patentable, the unity of invention of its dependent claims must be carefully considered. It must be assessed whether the other remaining dependent claims present "special technical features", in order to bring unity of invention to the set of claims.

DIVISIONAL PATENT APPLICATIONS

According to Industrial Property Law – IP Law (Law No. 9,279 of May 14, 1996), the condition of **unity of invention** is provided for in Articles 26, 27 and 28:

Article 26 - A patent application may, until the end of examination, be divided, ex officio or on request of the applicant, into two or more applications, provided that the divisional application:

I - makes specific reference to the original application; and

II - does not exceed the matter disclosed in the original application.

Sole Paragraph - A request for division not in accordance with the provisions of this article will be shelved.



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Article 27 - Divisional applications will have the filing date of the original application and the benefit of the priority of the latter, if any.

Article 28 - Each divisional application will be subject to payment of the corresponding fees.

For the purposes of Article 26 of the IP Law, the first filed application is considered an “original application” and can only be divided in two or more applications until the end of the examination procedure (first instance). A division request of a divisional application is not allowed.

The division of a patent application may be requested by the Applicant, even if the application presents a group of inventions interrelated by the same inventive concept. A divisional application may also be filed in response to the objection of lack of unity of invention raised by the Examiner during substantive examination.

The Patent Examiner will verify whether the subject matter of the divisional application exceeds that revealed in the original patent application (Item II of Article 26 of the IP Law). Once this criteria is met, the examination will proceed. Otherwise, the divisional patent application will be shelved.

UNITY OF INVENTION AND DOUBLE PROTECTION

The division of patent applications cannot imply double protection of the invention or utility model. Article 6 of the IP Law establishes that the to author of an invention or utility model will be assured the right to obtain a patent that guarantees ownership. In other words, to the inventor is granted a patent relating to his invention, and the granting of two patents for the same invention or utility model by the same inventor is not allowed.

Article 6 - The author of an invention or of a utility model will be assured the right to obtain a patent that guarantees to him the property, under the terms established by this law.



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When filling for a divisional patent application, the Applicant must remove the part of the claimed subject matter that appears in the original application to avoid double protection. The simple replication of part of the subject matter claimed in the original application to compose a divisional application actually constitutes a “multiplication of the patent application” and not a division, in the sense of Article 26 of IP Law.

The filing of the same subject matter by the request of a divisional patent application could serve for undesirable objectives, such as (i) the exclusive licensing of the same invention to a different licensee; (ii) an attempt by the Applicant to have the patent application examined by two patent examiners and eventually obtain the grant of a patent; (iii) to irregularly compose a larger patent portfolio that could benefit the company in a patent pool, so that the duplication of patents could negatively interfere with the fair participation of such royalties; (iv) in the past, to prolong the examination of the subject matter in a divisional application with a view to obtaining an extension of the patent's term in accordance with the sole paragraph of Article 40 of the IP Law (revoked by Law No. 14,195, of August 27, 2021)².

INPI has identified a progressive increase in divisional requests, some of which do not comply with the provisions of article 26 of the IP Law, and may give rise to double protection if granted. This has generated a greater burden for INPI due to the re-work carried out to conduct the examination of a subject matter that has been already examined during the substantive examination of the original patent application.

Furthermore, it is also necessary to consider the possible negative impacts on free enterprise and competition due to the legal uncertainty generated by the expectation of exclusivity rights for pending applications, given by article 44 of the IP Law, on a subject matter for which INPI has already decided to refuse.

Article 44 - A patentee is guaranteed the right to obtain compensation for the unauthorised exploitation of the subject matter of the patent, including exploitation that occurred between the date of publication of the application and that of grant of the patent.

² Abrantes, Antonio Carlos Souza de. In “Fundamentos do exame de patente: novidade, atividade inventiva e aplicação industrial”, Lumis Juris Editora, Rio de Janeiro, Brasil, 424 p. (2017). See pages 98 and 99, Chapter “Double Patenting”.



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§ 1 - If the infringer obtains, by any means, knowledge of the contents of a filed application, prior to publication, the period of undue exploitation, for the effect of compensation, will be counted from the date of commencement of the exploitation.

§ 2 - When the subject matter of a patent application relates to biological material, deposited under the terms of the sole paragraph of article 24, the right to compensation will only be conferred when the biological material has been made available to the public.

§ 3 - The right to obtain compensation for unauthorised exploitation, including with respect to the period prior to grant of the patent, is limited to the contents of the subject matter of the patent, under the terms of article 41.

INPI has been improving its administrative procedures relating to divisional applications in order to provide more transparency and increase efficiency. In mid-December 2022, INPI started to notify in the INPI Official Bulletin (RPI³) the request for a divisional application as part of the administrative process of the original patent application (Code 15.50). Later, in October 2023, the full content of the divisional applications began to be published for the sake of transparency (Code 3.1). Recently, INPI made it possible for every person to monitor the administrative procedures related to divisional applications through a BI platform made available for consultation on the Internet Portal⁴.

Whenever possible, the substantive examination of the divisional application is carried out by the same Examiner responsible for examining the original patent application. In addition, every effort is made to have the divisional application decided at the same time (or very close to it) of the original patent application.

The question of whether the divisional application claims the same subject-matter contained in the original application is not verified until the examination procedure has started. If the divisional application contains only subject-matter already examined and rejected in the substantive examination of the original patent application, it will be rejected for the same legal reasons presented for the original patent application.

³ RPI means “Revista da Propriedade Industrial”, the INPI Official Bulletin, generally issued every Tuesday.

⁴ <https://www.gov.br/inpi/pt-br/servicos/patentes/relatorios-gerenciais>. See “Relatório de pedidos divididos”.



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The examination of double protection in a divisional application is carried out by comparing its claims set with the claims of the original patent application and also with the claims of the other divisional applications, if any. Once a double protection is recognized by the Examiner, the divisional application request is rejected as it does not meet the provisions of Article 6 of the IP Law.

In the event that a divisional application claims a more specific subject matter than that claimed on the original application, it will be rejected as it does not comply with the provisions of Article 6 of the IP Law (double protection), considering that the broader subject matter claimed in the original application already covers the specific subject matter claimed in the divisional application.

On the other hand, an alternative implementation of the invention may be removed from the set of claims of the original application to be claimed in a divisional application, even if this alternative implementation shares the same inventive concept as the subject matter claimed in the original patent application.