

Research Project

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AMENDMENTS

In Patent Applications And Granted Patents According To European Patent Law And US Patent Law - A Comparison -

1.1 The Relevant European Law and the Legal Reasons for the Provisions

1.1.1 The Relevant Law in Respect of Amendments is Art. 123 European Patent Convention.

Paragraph 1 stipulates that amendments are allowed with the following wording:

(1) The European patent application or European patent may be amended in proceedings before the European Patent Office, in accordance with the Implementing Regulations. In any event, the applicant shall be given at least one opportunity to amend the application of his own volition.

Paragraph 2 limits the possibility of making amendments. It reads:

(2) The European patent application or European patent may not be amended in such a way that it contains subject-matter which extends beyond the content of the application as filed.

Paragraph 2 concerns patent applications, where paragraph 3 concerns European patents. It has the following wording:

(3) The European patent may not be amended in such a way as to extend the protection it confers.

1.1.2 Reasons for These Provisions

In decision G1/93, the reasons for these provisions are outlined in detail. Under points 9 and 11, the Enlarged Board of Appeal concludes:

“With regard to Article 123(2) EPC, the underlying idea is clearly that an applicant shall not be allowed to improve his position by adding subject-matter not disclosed in the application as filed, which would give him an unwarranted advantage and could be damaging to the legal security of third parties relying on the content of the original application. Article 123(3) EPC is directly aimed at protecting the interests of third parties by prohibiting any broadening of the claims of a granted patent, even if there should be a basis for such broadening in the application as filed.”

“From the point of view of legal security for third parties, relying on the content of a patent application as filed and published, the adding of undisclosed subject-matter, which may provide the basis for extending the protection conferred by the patent as granted in comparison with what was disclosed and claimed in the application as filed, represents obviously a real danger. Such added matters may be generalisations of specific features or embodiments and the introduction of new alternatives. In principle, it does not matter whether the addition concerns the claims, the description or the drawings, since the protection conferred by the patent has to be determined by all these elements in accordance with Art. 69 EPC and the Protocol on the interpretation of this provision. However, the claims are no doubt the most important element in this respect.”

In the commentary “Visser” the background in respect of amendments is discussed in the following manner:

The right to amend an application as provided in Art. 123 EPC is important for meeting objections of the EPO in grant and opposition proceedings or for implementing a shift in the desired scope of protection. During the grant procedure and a possible opposition procedure a more complete view of the state of the art is obtained, which often necessitates amendment of the text of the application or patent. Amendments usually relate to the claims of an

application to meet objections about patentability and clarity and sometimes to the description for removing inconsistencies. An amendment may be an amendment of addition, replacement or deletion.

The first paragraph of Art. 123 EPC restricts amendments in time, the second paragraph limits the extent of amendments of a patent application or a patent and the third paragraph adds a further restriction to the extent of amendments of a granted patent.

1.2 Case Law of the European Patent Office

1.2.1 Boards of Appeal

The Boards of Appeal responsible for the examination of appeals from decisions of an examining division or opposition division consists of two technically qualified members and one legally qualified member and are called "*Technical Boards of Appeal*". Their decisions are referenced with "*T*", followed by a number which is the number of the appeal filed within a certain year and after this, the number of the year, e.g. 93, which is the year when the appeal had been filed, but not the year when the decision had been published.

The Enlarged Board of Appeal is responsible for deciding on points of law referred to it by boards of appeal; giving opinions on points of law referred to it by the President of the European Patent Office; and deciding on petitions for review of decisions of the board of appeal. The decisions of the Enlarged Board of Appeal are nominated with a "*G*", followed by numerals in the same way as outlined before.

1.2.2 General

The decisions of the boards of appeal can be found on the website of the European Patent Office under <http://www.epo.org/law-practice/case-law-appeals/basic-search.html>

The case law of the boards of appeal is also summarized in the book “*Case Law of the Boards of Appeal of the European Patent Office*”, published by the European Patent Office.

Further information can be found in the Guidelines for *Examination in the European Patent Office*.

Further information can be found in leading commentaries (Singer/Stauder, *The European Patent Convention, A Commentary*, 3rd edition; Dr. Rainer Schulte, “*Patentgesetz mit Europäischem Patentübereinkommen; Kommentar*”, 8th edition; Gerald Paterson, *The European Patent System*, 2nd edition; Dr. Georg Benkard, “*Europäisches Patentübereinkommen*”, 2nd edition; Derk Visser, *The Annotated European Patent Convention*, 16th edition).

1.2.3 Disclosure in the Drawings

According to decisions T169/83, T523/88 and T818/93 the European Patent Law does not prohibit the amendment of claims to include features from drawings, provided the structure and the function of such features is clearly, unmistakably and fully derivable from the drawings by the skilled person and not at odds with the other parts of the disclosure. In these decisions it was pointed out that where the drawings existed they were to be regarded as an integrate part of the documents disclosing the invention. Drawings were to be treated in the same way as other parts of the application. Further, the fact that features were disclosed solely in the drawings did not preclude these features from becoming essentially in the course of the proceedings (T818/93). The feature for which a skilled person could clearly derive the structure and function from the drawings could be used to define more precisely the subject-matter for which protection was sought (T372/90). In T398/92 the board specified that the incorporation into the text of the claims of the numerical features derived from the curves of the drawing did not contravene Art. 123(2) EPC.

In T748/91 the board reached the conclusion that size ratios could be inferred even from a schematic drawing as long as the delineation provided

the relevant skilled person with discernible and reproducible technical teaching. In the board's view, schematic drawings depicted all the essential features.

1.2.4 Incorporation by Reference

In T6/84, the subject-matter of the application was a chemical process solely characterized in that the catalyst was a synthetic offretite. For the definition of this synthetic offretite the description referred to a Canadian patent specification in which the offretite used was defined. The board took the view that structural features of a means for performing a chemical process (here the catalyst "offretite"), which were not mentioned in the application documents themselves, but in a document (here a Canadian patent specification) to which they referred, could be incorporated into the patent claim if they unequivocally formed part of the invention for which protection was sought.

In T689/90, however, the description of the invention as originally filed did not in any way suggest that the "*further details*" of a certain feature to be found in a document referred to, and now to be included in the main claim, were intended to identify features of the invention for which protection might be sought or that such features implicitly clearly belonged to the description of the invention. The board decided that features disclosed only in the cross-referenced document, which was identified in the description as filed, were prima facie not within "*the content of the application as filed*". Adding them to a claim would not be an infringement under Art. 123(2) EPC only under particular conditions, namely if the description of the invention as filed left the skilled reader in no doubt that protection was sought for those features, if they helped achieve the invention's technical aim and thus, formed part of the solution to the technical problem underlying the invention claimed, if they implicitly clearly belonged to the description of the invention contained in the application as filed and thus, to the content of the application as filed, and they were precisely defined and identifiable within the total technical information contained in the reference document. In the case at issue, these requirements were not fulfilled.

1.2.5 Generalization

In T653/03, the original term “*diesel engine*” in claim 1 was replaced by the term “*combustion engine*”. Thus, the suitability of the claimed method was generalized to any type of combustion engine. The board decided that the treatment of exhaust gas in the original application was always related to a diesel engine, and it could not be inferred by the skilled person that the subject-matter of the granted patent extended to a method which was suitable for any type of combustion engine. The technical contribution was that the amended method was suitable for any type of combustion engine, whereas in the original form it was suitable only for a diesel engine. The generalization was not admissible.

1.2.6 Shift in the information

T1239/03 concerned a patent where no part of it contained a definition of the ethylene content of the elastomeric copolymer in terms of weight percent. Prior to the amendment, preference was given to the interpretation of “*mol percent*”, which, with the deletion of Example 3, had shifted towards “*weight percent*”. In the board’s view, Art. 123(2) EPC was to be interpreted as referring to the patent as a whole, rather than to the claims only. This was directly suggested by the clear wording of the Article. Hence, it was not crucial in which part of the patent an amendment had been carried out, but only whether the overall change in the content of the patent resulted in the skilled person being presented with information which was not clearly and unambiguously set out in the originally filed application, even when account was taken of matter which was implicit to the person skilled in the art. In the case at issue, the patent proprietor was unable to show that the percentage value could have been consistently interpreted as “*weight percent*” before and after the amendments. This led to the conclusion that the author of the amendments in the patent in suit had not discharged the burden of proof which rested upon him. The specific circumstances of this case, the deletion of the two examples in order to exclude the possibility of interpreting the

relevant percentage as mol percent provided a lateral shift of information corresponding to the extension of subject-matter beyond the content of the application as filed.

T97/05 concerned an amendment of the claim resulting in a shift of the information provided by examples. During the opposition proceedings, claim 1 was modified by replacing the term “*chemically*” with “*covalently*” in order to specify the nature of the bond between the organic groups and the core. The board held that in examining an amendment for compliance with the requirements of Art. 123(2) EPC it was necessary to consider not only the claims but also other parts of the application or patent, i.e. the description and examples. The information provided with the description was that the bonding between the core and the anionic group was “*chemical*” and that the one type or species of “*chemical*” bonding was “*covalent*”. The term “*chemically bonded*” was employed in the general description of the application as filed and thus, encompassed but did not specifically disclose compounds in which the anionic moieties were “*covalently*” bonded to the core. The board came to the conclusion that as a consequence of the amendment to the claims, the information content of the general part of the description was changed compared to the information content of the application as filed. The bonding between the core and the anionic groups in the activated catalyst composition were no longer defined generically as “*chemical*”, but was now more narrowly and specifically defined as being a species of “*chemical*”, namely “*covalent*”. Thus, there was a shift in the information in the patent as amended compared to that provided by the application as filed. Therefore, the main request did not meet the requirements of Art. 123(2) EPC.

1.2.7 Intermediate Generalization – Non-Disclosed Combinations

The boards of appeal considered what happens when an amendment concerns taking features out of the initial context and combining them with others. The boards of appeal have had to decide under which conditions the resulting amendments fulfilled the requirements of Art. 123(2) EPC. In

decisions T1408/04 and T461/05, for instance, the expression “*intermediate generalization*” was used in this context.

In T67/97, the board confirmed that if a claim was to be restricted to a preferred embodiment, it was normally not admissible under Art. 123(2) EPC to extract isolated features from a set of features which had originally been disclosed in combination for that embodiment. An amendment of this nature would only be justified in the absence of any clearly recognizable functional or structural relationship amongst said features.

In T284/94 the board stated that an amendment of a claim by the introduction of a technical feature taking an isolation from the description of a specific embodiment was not allowable under Art. 123(2) EPC if it was not clear beyond any doubt for a skilled reader from the application documents as filed that the subject-matter of the claims as amended provided a complete solution of the technical problem unambiguously recognizable from the application. Nor was an amendment allowable under Art. 123(2) EPC which replaced the disclosed specific feature either by its function or by a general term and thus, incorporated undisclosed equivalence into the content of the application as filed.

In T714/00, the board stated that extracting an isolated feature from an originally disclosed combination and using it to delimit claimed subject-matter could only be allowable in connection with Art. 123(2) EPC if that feature was not inextricably linked with the further features of the combination.

With regard to isolation and extraction of combined features, T25/03 first records that according to the established case law of the boards of appeal, if a claim was restricted to a preferred embodiment, it was normally not admissible under Art. 123(2) EPC to extract isolated features from a set of features which had originally been disclosed in combination for that embodiment. That kind of amendment would only be justified in the absence of any clearly recognizable functional or structural relationship amongst said features (see T1067/97). In the case at issue the board concluded that since claim 1 resulted from the extraction of isolated steps from the specific combination disclosed as essential in the embodiment, claim 1 as amended did not meet the requirements of Art. 123(2) EPC.

In T582/91, the board considered that one feature of a dependent claim could be readily combined with a preceding independent claim as long as the skilled person recognized that there was clearly no close functional or structural relationship between the one feature of said dependent claim and its other features, or between the one feature and the teaching of other dependent claims referred to in that dependent claim. If this was the case, no objections under Art. 123(2) EPC arose (cf. in T938/95).

In T1408/04, the board stated that the terminology introduced into claim 1 was not disclosed *expressis verbis* in the filed application. From the broad range of topsheet/backsheet structures within the scope of claim 1 as granted, a specific selection had now been made. The board considered that, to avoid an intermediate generalization (i.e. an undisclosed combination of selected features lying somewhere between an originally broad disclosure and a more limited specific disclosure), all the necessary features of the specific selection must be included in the claim. The selection in this case came from the drawings, which, however, also showed a particular type of topsheet/backsheet connection. This particular connection was lacking in the claim, which resulted in an intermediate generalization of the original disclosure and therefore, the subject-matter of the claim did not meet the requirements of Art. 123(2) EPC.

In T461/05, the board found that claim 4 as amended defined subject-matter which was less general than that defined in claim 1 of the original version, but more general than the particular embodiment disclosed in the description. Claim 4, thus, represented a generalization, also referred to in the patent jargon as an intermediate generalization. Here, the board emphasized that an intermediate generalization was different from a simple generalization, since in the former case a definition of the invention in general terms formed part of the original disclosure. The expression intermediate generalization conveyed the idea that the amended subject-matter was a generalization of a particular embodiment disclosed in the original application, which was at an intermediate point between that particular embodiment and the definition in general terms of the invention as originally disclosed. In the view of the board, the expression “intermediate limitation” would in fact be more apt, since it emphasized that

the amendment was also a restriction of the original disclosure in general terms.

In T461/05, the main claim was restricted in general terms by adding part of the features of a combination of features originally disclosed as a particular embodiment. The amendment therefore comprised the omission of certain characteristics of the combination of features of the particular embodiment. The board held that the provision of Art. 123(2) EPC precluded such an amendment only where the amendment presented a skilled person with new information which did not follow directly and unambiguously from the application as originally filed. A restriction of a claim by adding a number of features from a particular embodiment originally disclosed did not in itself introduce such new information. By contrast, the omission of the remaining features of the embodiment would introduce new information if the omitted features were necessary to carry out the particular embodiment of the invention. In this case, the omission of these features would present the skilled person for the first time with the information that, contrary to what had originally been disclosed, these features were not necessary in order to carry out the particular embodiment of the invention.

G1/93 stated that if an added feature merely excluding protection for part of the subject-matter of the claimed invention as covered by the application as filed, the adding of such a feature could not reasonably be considered to give any unwarranted advantage to the applicant. Nor did it adversely effect the interests of third parties. Therefore, a feature which had not been disclosed in the application as filed, but which had been added to the application during examination, was not to be considered as subject-matter which extended beyond the content of the application as filed within the meaning of Art. 123(2) EPC, if it merely limited the protection conferred by the patent as granted by excluding protection for part of the subject-matter of the claimed invention as covered by the application as filed, without providing a technical contribution to the subject-matter of the claimed invention.

In T64/96, a patent relating to a cover for automobile sun visor mirrors comprising rectangular plates overlapping was amended in that it was included as an additional feature that lugs were "*integrally formed in said plates*". The board came to the conclusion that applying the criterion as set

out in G1/93 and T384/91 to the present case, it could be seen that the feature in question did indeed make a technical contribution to the subject-matter of the claim since forming the lugs integrally with the plates led to a simple and cheaper construction of cover which, at least, by implication, was the technical problem which the invention set out to solve. Thus, the addition of this feature to claim 1 offended against Art. 123(2) EPC.

The board in T931/00 stated that although figures in examples might, under specific conditions, be used to limit a range which was already present in the original application, they could not be used to define an entirely new relationship between parameters which had never been linked before. Such arbitrary new links between existing parameters introduced new matter, contrary to the requirements of Art. 123(2) EPC.

In T802/92, the board invoked the principles underlying the interpretation of Art. 123(2) EPC set out by the Enlarged Board in G1/93. According to the board in this case these considerations were equally applicable to cases where a feature had been removed from a claim or omitted, so as to broaden its protection. Thus, the removal from a claim of a feature which did not provide a technical contribution to the subject-matter of the claimed invention and whose removal merely broadened the protection conferred by the claim did not contravene Art. 123(2) EPC.

In T10/97 not all the compounds listed in the original claim were included in amended claim 1. However, since the claimed group of compounds was obtained not by restricting an originally disclosed generic definition of a substituent in a generic formula to a specific one selected from worked examples, but by deleting some members from a list of individually equally useful compounds in order to improve the chances of patentability over the available prior art, the board found that such deletions must be considered admissible in accordance with the case law of the boards of appeal (see T393/91).

1.2.8 Technical Contribution

In G1/93, the Enlarged Board of Appeal stated that if an added feature merely excluded protection for part of the subject-matter of the claimed invention as covered by the application as filed, the adding of such a feature could not reasonably be considered to give any unwarranted advantage to the applicant. Nor did it adversely affect the interests of third parties. Therefore, a feature which had not been disclosed in the application as filed, but which had been added to the application during examination was not to be considered as subject-matter which extended beyond the content of the application as filed within the meaning of Art. 123(2) EPC, if it merely limited the protection conferred by the patent as granted by excluding protection for part of the subject matter of the claimed invention as covered by the application as filed, without providing a technical contribution to the subject matter of the claimed invention.

In case T64/96, the board came to the conclusion that applying the criterion, as set out in G1/93, and T384/91 to the present case, it could be seen that the feature in question did indeed make a technical contribution to the subject-matter of the claim since forming the lugs integrally with the plates led to a simpler and cheaper construction of cover which, at least by implication, was a technical problem which the invention set out to solve. Thus, the addition of this feature to claim 1 offended against Art. 123(2) EPC.

Another question which arose was whether deleting a feature could constitute a technical contribution to an invention.

In T802/92 the board invoked the principles underlying the interpretation of Art. 123(2) EPC set out in G1/93. According to the board, in this case these considerations were equally applicable to cases where a feature had been removed from a claim or omitted, so as to broaden its protection. Thus, the removal from the claim of the feature, which did not provide a technical contribution for the subject-matter of the claimed invention and whose removal merely broadened the protection conferred by the claim did not contravene Art. 123(2) EPC.

1.2.9 Amendments Based on Examples

In T201/83 the board came to the conclusion that the amendment of the concentration range for a component of the claimed alloy was admissible on the basis of a value described in a specific example since the skilled person could have readily recognized that this value was not so closely associated with the other features of the Examples as to determine their effect of said embodiment of the invention to a significant degree. A new limit could therefore be deducted from the original documents.

In T433/01 the board's view was that the request failed to meet the requirements of Art. 123(2) EPC because it did not satisfy the criterion derived from T201/83 that for a generalization based on a value described in an example to be admissible the value had to be manifestly independent of the other features of the example in terms of the relevant technical properties.

The board in T876/06 suggested that according to EPO practice, as stated for instance in T201/83, an amendment of the concentration range in a claim for a mixture is allowable on the basis of the particular value described in a specific example, if the skilled person could readily recognize this value as not so closely associated with the other features of the example as to determine the effect of the invention as a whole in a unique manner and to a significant degree. Applying this principle, the board said that it had to be decided in the case at issue whether or not the weight ratio of liquid rubber to solid rubber set out in several examples was in this sense closely associated with the other features of these examples. The board came to the conclusion that the skilled person could have recognized in the application as originally filed that the weight ratio of liquid rubber to solid rubber was not so closely associated with the other features of the examples as to determine the effect of the invention as a whole in a unique manner and to a significant degree. Thus, in the board's judgment, in the case at issue it was permissible to use a particular value used in several examples to limit the range of the weight ratio of liquid rubber to solid rubber.

The board decided in T184/05 that an impurity concentration value of a product obtained under specific process conditions could not be taken in

strict isolation from the examples unless it had been demonstrated that this value was not so closely associated via the applied process with specific maximum values of all other impurities comprised in the product.

In T570/05 the board examined whether or not there existed a functional or structural relationship between the coating layer thickness, in particular its lower limit, and the remaining features of the claim. The board concluded that the condition of absence of any clearly recognizable functional or structural relationship, under which an isolated extraction of a feature of an example would be allowable under Art. 123(2) EPC according to the relevant case law, was not satisfied in the present case.

In T1146/01 the board stated that formulating a new range on the basis of individual values taken from selected examples, which were not at all directly related to each other, meant that the reader was confronted with new information not directly derivable from the text of the application as originally filed.

1.2.10 Selection from lists

In T727/00 the board held that the combination – unsupported in the application as filed – of one item from each of two lists of features meant that also the application might conceptually comprise the claimed subject matter, it did not disclose it in that particular individual form. For that reason alone, the claim was not supported by the description.

Although the direction of explicitly disclosed borderline values defining several (sub)ranges, in order to form a new narrower sub-range, is not contestable under Art. 123(2) EPC when the ranges belong to the same list, a combination of an individual range from this list with another individual range emerging from a second list of ranges and relating to a different value is not to be disclosed in the application as filed, unless there is a clear pointer to such a combination (T1511/07).

The board in T1374/07, referring to T811/96, said that a selection of components from one list is in fact equivalent to a two-fold selection from two identical lists.

According to the board's consistent case law, the guiding principle is that deleting meanings of residues must not lead to a selection, in the respective lists, of a particular combination of single, specific and originally undisclosed meanings of residues (see T615/95 and T859/94).

In T942/98, precisely this had occurred through a deletion of all other meanings. Residues X¹, X² and R⁵ had been narrowed down to a single meaning, leading to a combination of specific meanings of residues not disclosed in the application as filed. Consequently, the claim as filed did not in itself provide adequate support for the claim as amended.

In T615/95 there were three independent lists of sizable length specifying distinct meanings for three residues in a generic chemical formula in a claim. One originally disclosed meaning was deleted from each of the three independent lists. The board stated that the present deletions did not result in a singling out of a particular combination of specific meanings, i.e. any hitherto not specifically mentioned individual compound or group of compounds, but maintained the remaining subject matter as a generic group of compounds differing from the original group only by its smaller size. Such a shrinkage of the generic group of chemical compounds was not objectionable under Art. 123(2) EPC, since these deletions did not lead to a particular combination of specific meanings of the respective residues which was not disclosed originally or, in other words, did not generate another invention (see also T948/02, which refers in detail to the case law on the deletion of one originally disclosed meaning and which did not allow the amendment of a generic chemical formula; see also T659/97 and T894/05).

In T1863/06 the board stated that the amendment creates a criticality as to the combination of sub-classes for components b) and c), which was not disclosed in the application as originally filed. In this connection, the content of the application as originally filed must not be treated as something in the nature of a reservoir from which it would be permissible to combine different individual features pertaining to preferred embodiments in order to create artificially a particular new embodiment, unless the application as originally filed itself suggests such a combination of features.

In T181/08 it is outlined that under these circumstances, the person skilled in the art reading this description firstly finds no guidance with which of the

preferred features to start and secondly, with which of the other features to continue. Therefore, the combination of the two features “*thickness of coating layer*” and “*amount of coating layer*” is not directly and unambiguously disclosed in the application as originally filed.

In T1265/04, it is stated that a combination of an upper and lower limit for the active component corresponds to the selection of one out of four possibilities, i.e. a “*one-dimensional*” selection of a list of four members. In the original application documents, however, there are four further independent options for the concentration. None of these four options is clearly and unambiguously correlated with the four other concentration ranges. This selection corresponds to an arbitrary selection of two groups for the concentration ranges, which have not been individualized in the original application documents.

Decision T972/04 states that nothing in the wording of the claims as originally filed links the regimen “*administering a certain amount per kg per day*” specifically to the disease now stated in claim 1. Accordingly, the teaching of the claim cannot be regarded as individualized in the set of claims as originally filed.

1.2.11 Disclaimers

The Enlarged Board of Appeal ruled in G1/03, handed down on April 08, 2004, on referrals concerning disclaimers and established the criteria to be taken into account. The criteria established by the Enlarged Board of Appeal are:

1. An amendment to a claim by the introduction of a disclaimer may not be refused under Article 123(2) EPC for the sole reason that neither the disclaimer nor the subject-matter excluded by it from the scope of the claim have no basis in the application as filed.

2. The following criteria are to be applied for assessing the allowability of the disclaimer, which is not disclosed in the application as filed:

- 2.1 The disclaimer may be allowed in order to:

- restore novelty by limiting the claim against state of the art which is not pre-published;
- restore novelty by delimiting a claim against an accidental anticipation; an anticipation is accidental if it is so unrelated to and remote from the claimed invention that a person skilled in the art would never have taken it into consideration when making the invention; and
- disclaim subject-matter, which is excluded from patentability, for non-technical reasons.

2.2 The disclaimer should not remove more than is necessary either to restore novelty or to disclaim subject-matter excluded from patentability for non-technical reasons.

2.3 The disclaimer, which is or becomes relevant for the assessment of inventive step or sufficiency of disclosure, adds subject-matter contrary to Art. 123(2) EPC.

2.4 A claim containing a disclaimer must meet all the requirements of clarity and conciseness of Art. 84 EPC.

1.2.12 Comprise / Consisting Of

During examination procedure the applicant may find it necessary, especially in order to limit the main claim over the prior art, to change the terminology of the claim from “comprising” to “consisting”. The same might be a necessary approach for the patent proprietor in opposition and appeal proceedings.

Both terms are usual in the patent language whereby the term “comprising” is understood in such a way that the claim is not limited to the specific features stated in the claim, e.g. process steps, whereas with the term “consisting of” the understanding is that all features are stated in the claim.

In earlier decisions the substitution of “comprising” by “consisting of” was not regarded as a violation of Art. 123(2) EPC.

In T425/98, it is stated under 3.1.:

“The meaning of the word “comprising” is to be interpreted as encompassing all the specifically mentioned features as well optional, additional, unspecified ones, whereas the term “consisting of” only includes those features as specified in the claim. Therefore, “comprising” includes as a limiting case the composition specified by “consisting of”. The Board is satisfied, therefore, that the present request is not amended in such a way that it contains subject-matter which extends beyond the application as filed.”

Very similar wording is used in T457/98, where it is stated under 2.1.1.:

“The meaning of the word “comprising” is generally interpreted as encompassing all the specifically mentioned features as well optional, additional, unspecified ones, whereas the term “consisting of” only includes those features as specified in the claim. Therefore, “comprising” includes the term “consisting of”, so that the amendment from the former into the latter term does not extend beyond the content of the application as filed.”

A much more critical view is expressed in the later decision, T1063/07, where it is outlined under point 2.2.:

“It is conspicuous to the board that there is no disclosure in the application as originally filed of a composition useful as an addition polymerization catalyst that is made up only of the metal complexes A1, A2 or A3 and an activating cocatalyst and nothing else, which is the meaning of the term “consisting of” in Claim 1. In fact, the wording “consisting of” does not appear in the application as filed. The replacement in Claim 1 of “comprising” by “consisting of” creates a criticality as to the presence of only the metal complexes A1, A2 or A3 and an activating cocatalyst in the composition which is not present as a sub-combination in the application as originally filed. Claim 1 of the main request therefore contains added subject-matter.”

Also in decision T2017/07, this critical trend to the substitution of “comprising” by “consisting of” continues. In this decision, it is outlined under point 4.:

“Claim 1 has been amended such that the compositions now consist of a closed list of components (a) to (g), i.e. the feature “comprising” has been replaced by the feature “consisting of “ and the optional components (c) to (g) have been introduced into the claim.

4.1 According to the Respondent the support for the feature “consisting of”, which requires that the claimed composition solely consisted of the components indicated was purported to be based on the fact that all components which were disclosed in the application as filed as being optional were included in the claimed composition, thereby implying that no other component was present in the composition.

This argument, however, must be rejected for lack of pertinence since the fact that components may be present in a composition does not necessitate a contrario that other components are excluded from the composition. Thus, there is no disclosure in the application as filed that the disclosed lists of components were exhaustive.”

1.2.13 Direct And Unambiguous Deductibility Of Amendments From The Application As Filed

In accordance with established board case law, the relevant question to be decided in assessing whether an amendment adds subject-matter extending beyond the content of the application as filed is whether the proposed amendment were directly and unambiguously derivable from the application as filed. The established case law is reviewed in decisions T1206/01, T731/03, T1407/06 and T1772/06.

Decisions T288/92 and T187/91 make it clear that a decisive question when assessing the admissibility of the amendments is whether the amendment can be directly and unambiguously deducted from the application documents as filed.

In T288/92, the applicant contended that the amendment resulted in a limitation of the original claim. The board rejected this argument on the

grounds that the expression “*subject-matter which extends beyond the content of the application as filed*” in Art. 123(2) EPC prohibited the introduction of any technical information which a skilled person would not have objectively derived from the application as filed, so that the examination of the allowability of an amendment according to Art. 123(2) EPC was directed to the process of “*derivation*” (see also T383/88), as distinct from a simple comparison of the scopes of amended and unamended subject-matters. In the view of the board, this provided a definitive method for deciding the allowability of an amendment. On the fact of the case the board held that it was not permissible to amend a generic formula defining a class of chemical compounds restricting an originally disclosed generic definition of a substituent to a specific (individual) one which was arbitrarily selected from chemical entities without some support for such a restriction in the general part of the description (see also T859/94).

In T367/92 an amendment was rejected under Art. 123(2) EPC because it contained a specific term which, in the board’s view, could not be considered to be clearly and unambiguously derived from the originally disclosed generic term. In this case, the issue of admissibility under said article, boiled down to the question whether the generic term “*polyester*” could be equated with the specific term “*polyethylene terephthalate*”. The sole document added by the patent proprietor in support of this interpretation provided only that polyethylene terephthalate was a polyester (which was never under discussion), but did not show that “*polyester*” could be interpreted as implicitly meaning “*polyethylene terephthalate*”.

In T925/89, the board had to decide whether the range 30% to 50%, given in the claim, infringed Art. 123(2) EPC, since such a range was not disclosed in the originally filed documents of the patent in suit, which only disclosed a general range of 30% to 60% and the preferred range of 35% to 50%. The board held that according to established case law, in the case of such a disclosure of both a general and a preferred range, a combination of the preferred disclosed lower range and one of the part-ranges lying within the disclosed overall range on either side of the narrower range was unequivocally derivable from the original disclosure of the patent in suit and

thus, supported by it (see T2/81, T201/83, T53/82, T571/89, T656/92, T522/96 and T947/96, all referring to T2/81 and more recently to T1107/06).

T985/06 concerned the amendment of an upper limit of a range to a new lower value, not thus supported by the description. The board acknowledged that the range included all values within this range, however, the application as filed disclosed only the range in general and did not specifically, and thus directly and unambiguously, disclose all values within it. The amendment therefore contravened Art. 123(2) EPC.

1.2.14 Deletion of Features, Re-Defining of an Invention and the “Is It Essential” Test

Another test, the so-called “*is it essential test*” had been developed by the boards of appeal for the allowability of an amendment having regard to Art. 123(2) EPC concerning the deletion of a feature. In T66/85, it was pointed out that if a technical feature was deleted from a claim in order not to exclude from protection certain embodiments of the invention, the broadening of the claim did not contravene Art. 123(2) EPC as long as there was a basis for a claim lacking this feature in the application as originally filed. It was immaterial whether or not the feature in question was relevant to the inventive concept of the claimed subject-matter.

T133/85 concerned a case where a feature was described as an essential feature of the invention but was not contained in the claim. The claim was therefore not supported by the description. An amendment to the description to provide support for the claim was, however, not allowable under Art. 123(2) EPC, because the amended specification would contain subject-matter which extended beyond the content of the application as filed – namely information that such feature was not an essential feature of the invention.

However, in T260/85 it was stated that it was not permissible to delete from an independent claim a feature which the application as originally filed consistently presented as being an essential feature of the invention, since

this would constitute a violation of Art. 123(2) EPC. T496/90, T189/94, T628/91 and T728/98 confirmed this case law.

That the original disclosure is the determining factor is also clear from T331/87, in which deletion of a non-essential feature was allowed. The replacement or removal of a feature from a claim may not infringe Art. 123(2) EPC if the skilled person would clearly and unambiguously recognize that (1) the feature was not explained as essential in the disclosure, (2) it was not, as such, indispensable for the function of the invention in the light of the technical problem it served to solve, and (3) the replacement or removal required no real modification of other features to compensate for the change.

In T784/97, the patent proprietor alleged that the prior art document would have made the skilled person aware that the disputed feature was not essential. The board held that whether or not a feature of an independent claim had to be seen as "*essential*" could not be a question of the prior art disclosure. Rather, what had to be decided was what a skilled person was taught by the originally filed documents. In the present case, a skilled person having considered the originally filed documents was aware that the particle size was part of the alleged invention so that this feature could not be omitted from the independent claim at a later stage without contravening the requirements of Art. 123(2) EPC.

In T583/93, the board considered that the Convention contained no requirement that forbade the redefinition of an invention provided that Arts. 123(2) and (3) EPC were complied with. Such a redefinition was necessary in order to take into account prior art not known to the applicant at the priority date. It was therefore possible that features described as optional at the priority date later became essential in the sense that they were necessary to delimit the invention from the prior art. The introduction of such features was permissible provided that, first, the application as originally filed contained an adequate basis for such limitations and, second, the resulting combination of features was still in line with the teaching of the application as originally filed.

1.2.15 **“Beyond Reasonable Doubt”**

In T383/88 the board held that the normal standard of proof in proceedings before the boards of appeal, namely “*the balance of probability*”, was inappropriate for determining the allowability of an amendment under Art. 123(2) EPC. Instead, a rigorous standard, i.e. one equivalent to “*beyond reasonable doubt*” was considered by the board to be the right one to apply in such a case, since applying a lower standard could easily lead to undetected abuse by allowing amendments on the basis of ostensibly proven common general knowledge.

In T795/92, the board stated that Art. 123(2) EPC clearly precluded allowing an amendment if there was any doubt as to whether or not it was derivable from the original application. In the case at issue, an upper limit of 89% indicated in claim 1 of the Main Request for the degree of nickel reduction was not expressly mentioned in the application as filed. The board decided that, in spite of a certain probability, in favor of the patentee’s position, the amendment was not allowable because there were various known methods for calculating this value, not all leading to identical results and the application did not directly and unambiguously disclose which method had to be used.

1.2.16 **Art. 123(3) EPC**

The board of appeal held in its decision T371/88 that Art. 123(3) was not contravened if a restrictive term in a granted claim, which in its strict literal sense did not embrace an embodiment set out in the description, was replaced by a less restrictive term. The restrictive term should not, however, be so clear in its technical meaning in the given context that it could be used to determine the extent of protection without interpretation by reference to the description and drawings. Moreover, it had to be quite clear from the description and drawings and also from the examination procedure up to grant that the further embodiment belonged to the invention and that it was never intended to be excluded from the protection conferred by the patent (see also T673/89, T738/95, T750/02 and T749/03).

In T795/95, the board found that deleting the feature “*preferably polyvinyl or polyethylene*” from the preamble of granted claim 1 extended the protection conferred. The formulation “*preferably polyvinyl or polyethylene*” had no bearing on the scope of protection, which was determined by the more general term “*plastic*” and not the specific preferred substances polyvinyl or polyethylene. Deleting a “*preferred*” feature did not extend the scope of protection if such feature was encompassed by an earlier and general one, in this case, “*plastic*”, which determined the protection conferred.

The decision G2/88 of the Enlarged Board of Appeal related to a change of claim category in opposition proceedings, and in particular to the change from a product claim to a use claim. It stated that the change of category of granted claims in opposition proceedings was not open to objection under Art. 123(3) EPC, if it did not result in extension of protection conferred by the claims as a whole when they were interpreted in accordance with Art. 69 EPC and its Protocol.

1.2.17 The “Trap”

The situation can arise, and this is not so rarely the case, that the patent proprietor gets caught in opposition proceedings between the provisions of Art. 123(2) and 123(3) EPC, which is called the “*trap*”.

The Enlarged Board of Appeal dealt in its decision G1/93 with this problem and stated as follows:

If a European patent as granted contained subject-matter which extended beyond the content of the application as filed within the meaning of Article 123(2) EPC and which also limited the scope of protection conferred by the patent, such a patent could not be maintained in opposition proceedings unamended, because the ground for opposition based on Article 123(2) EPC prejudiced the maintenance of the patent. Nor could it be amended by deleting such limiting subject-matter from the claims, because such amendment would extend the protection conferred, which was prohibited by Article 123(3) EPC. Therefore, in principle, if the European patent as

granted contained a "*limiting extension*", it had to be revoked. Paragraphs 2 and 3 of Art. 123 EPC were neutrally independent of each other. In this sense, it had to be admitted that Art. 123(2) EPC in combination with Art. 123(3) EPC could operate rather harshly against an applicant, who ran the risk of being caught in an inescapable trap and losing everything by amending his application, even if the amendment was limiting the scope of protection. However, this hardship was not per se a sufficient justification for not applying Art. 123(2) EPC as it stood in order to duly protect the interests of the public. Nor did it, in principle, matter that such amendment had been approved by the examining division. The ultimate responsibility for any amendment of the patent application always remained that of the applicant.

2.1 The Relevant US Law and the Legal Reasons for the Provisions

According to 35 U.S.C. 112, “the specification shall contain a written description of the invention, and of the manner and process of making and using it. ... “

35 U.S.C. 132, concerning notice of rejection and re-examination, states at the end of paragraph (a) “*no amendment shall introduce new matter into the disclosure of the invention.*”

In Chisum on Patents, § 11.04, Amendments – New Matter, the following is outlined in respect of the background of “new matter”:

“The “new matter” prohibition is a corollary to the rules regarding (1) the filing of a complete application as the prima facie invention date and (2) constructive reduction to practice. The prohibition also guards against possible confusion about the prior art effect of a patent; a patent has prior art effect for all that it discloses as of its filing date. If applicants could freely add new substantive information by amendment, the public could determine the prior art date of information in a patent only by studying the patent’s prosecution history. With the new matter prohibition, applicants can add substantive information only on clearly-defined dates that are printed on the patent, that is, the filing dates of the original application and of any subsequent continuation-in-part applications.”

2.2 Sources

In addition to the leading decisions of the relevant courts, other sources deal with amendments and the introduction of new matter.

These are:

Guidelines of Examination of the USPTO, <http://www.uspto.gov/> ;

MPEP, Manual of Patent Examination Procedure,
<http://www.uspto.gov/web/offices/pac/mpep/index.html> ;

4-11 Chisum on Patents, § 11.04, Amendments – New Matter, Matthew Bender & Company, Inc.

2.3 US Case Law

2.3.1 Historical Development

The right to amend an application was first expressly recognized in the 1836 Patent Act, which allowed an applicant after first rejection to “*persist in this claims for a patent, with or without any alteration in the specification.*” The Supreme Court noted that the right to alter did not include the right to introduce “*a distinct and different invention*” “*not contemplated by the specification, as submitted at the outset*” (Godfrey v. Eames, 68 U.S. (1 Wall.) 317, 325, (1864)). The rule against “*new matter*” became well-established in early Patent Office practice.

In 1952, Congress codified that the existing rule by providing in Section 132 that “*No amendment shall introduce new matter into the disclosure of the invention.*”

In Chicago v. N.W. Ry. Co. v. Sayles, 97 U.S. (7 Otto) 554 (1878), the Court held that the patent was not infringed and noted that it would be inappropriate to look to any new matter added by amendment in determining infringement.

In Eagleton Mfg. Co. v West, Bradley & Cary Mfg. Co., 111 U.S. 490 (1884), an amendment was submitted which described the process in more detail and emphasized not only corrosion resistance but also added strength as important property.

The Supreme Court ruled that the amendments made were not mere amplifications of what had been in the application before.

In Schriber-Schroth Co. v. Cleveland Trust Co, 305 U.S. 47, 39 USPQ 235 (1938), the patentee amended his application to stress lateral flexibility and eventually prevailed as to priority of the invention. The Court held, however, that the amendment was impermissible “*new matter*”, because this was not

the invention of the original disclosure which described it as an extremely rigid web.

In *Mackay Radio & Telegraph Co. v. Radio Corp*, 306 U.S. 72, 37, USPQ 471(1939), the application was amended in several respects to stress that *“it is not intended that the wire so described shall necessarily be an extract or approximate integral number of half wave lengths, unless so specified, that rather each of the wires described shall be sufficiently long to include the length specified.”*

The Court stated:

“We are not able to construe the application, before amendment at least, as embracing such an extension.”

And regarded the amendment as not permissible.

2.3.2 Clarifications

An amendment to the specification does not violate the new matter rule if it merely *“clarifies or completes”* the original disclosure. (*Hobbs v. Beach* 180 U.S. 383 (1901)).

Court decisions state, in various ways, that specifications may be amended to *“clarify”* the original disclosure; thus: (1) *“insertions by way of amendment in the description or drawing, or both, of a patent application, do not invalidate a patent, if they are only in amplification and explanation of what was already reasonably indicated to be within the invention”*; (2) *“amendments may be made to patent applications for the purpose of curing the defects, obvious to one skilled in the art, in the drawings or written descriptions of inventions”*; (3) *“an amendment to an application is not “new matter” within the Patent Act or Rules of the Patent Office unless it discloses “an invention”, process or apparatus not therefore described”. If the later-submitted material accused of being “new matter” simply clarifies or completes the prior disclosure it cannot be treated as “new matter”. ... Moreover, the determination of the Patent Office to admit the later-submitted material, thereby signifying that the Patent Office does not*

consider it to be “new matter”, is presumptively correct”; (4) “the amendments to the specification merely render explicit what has been implicitly disclosed originally, and, while new language has certainly been added, we are not prone to view all new “language” ipso facto as “new matter”.

Numerous decisions find amendments not new matter. However, *Mackay Radio & Tel. Co v. Radio Corp.*, 306 U.S. 86, 37 USPQ 471 (1939), states that an amendment violates the rule if it adds matter “neither disclosed nor suggested” in the original specification, drawings and claims or cures a fundamental defect in the original disclosure.

Drawing the line between permissible clarification and impermissible *addition* is a difficult task to be resolved in the context of the particular case. In *Harries v. Air King Prods. Co.*, 183 F.2d 158, 86 USPQ 57 (2d Cir. 1950).

In *In re Oda*, 443 F.2d 1200, 170 USPQ 268 (CCPA 1971), the Court discussed the difficulty in the following way:

“‘New Matter’ is a technical legal term in patent law – a term of arts. Its meaning has never been clearly defined for it cannot be. The term is on a par with such terms as infringement, obviousness, priority, abandonment, and the like which express ultimate legal conclusions and are in the nature of labels attached to results after they have been reached by processes of reasoning grounded on analyses of factual situations. In other words, the statute gives us no help in determining what is or is not ‘new matter’. We have to decide on a case-by-case basis what changes are prohibited as ‘new matter’ and what changes are not.

In a sense, anything inserted in a specification that was not there before is new to the specification but that does not necessarily mean it is prohibited as ‘new matter’.”

2.3.3 Errors in Chemical Formulae and Sequences

Applications for chemical and biotechnology inventions may contain errors in the formulae or sequences used to describe compounds, including DNA sequences and proteins.

In *Ex parte Maizel*, 27 USPQ2d 1662, rejected the amendment of the DNA coding sequence set forth in the specification which was erroneous at three nucleotide positions. It noted the “*drastic consequences*” of a sequencing error that deletes or adds a nucleotide rather than merely misdescribing one or more nucleotides.

With respect of general rules and guidelines to be followed, the board argued:

“We recognize that errors may well arise in the sequencing of DNA and that a mechanism for correcting such errors in the Patent and Trademark Office is highly desirable. ... Unfortunately, no general rule can be established because the question of whether or not a change in the chemical structure of a DNA sequence set forth in the specification is permitted depends on the facts of each case and the significance of the modification.”

2.3.4 Incorporation by Reference

Instead of repeating some information contained in another document, an application may attempt to incorporate the content of another document or part thereof by reference to the document in the text of the specification. Information incorporated is as such a part of the application as filed as if the text was repeated in the application, it should be treated as part of the text of the application as filed. Replacing the identified material incorporated by reference with the actual text is not new matter according to MPEP.

An applicant may clarify or even add the full text of matter incorporated in the original amendment by reference without violating the rule against new matter. (See Walterscheid, “Incorporation by Reference: A Case History of the Evolution of a Doctrine in the Patent Law”, 22 IDEA 63 (1981-1982).

In *In re Hawkins*, 486 F.2d, 569, 179 USPQ 157 (CCPA 1973), the applicant claimed chemical compounds and as to utility referred by number to “*copending British applications*.” After an examiner rejected his claims for inadequate utility disclosure, the applicant amended the application by replacing the references with the British applications’ full text. The Court of Customs and Patent Appeals did not see a “*new matter*” objection.

2.3.5 Inherency – Structure

In seeking to avoid a “*new matter*” objection, an applicant frequently argues that an amendment simply makes explicit that which was inherent in the original application’s disclosure. Because the amendment thus does not correct any fundamental defect in the original disclosure, it should be allowed.

In considering the inherency doctrine, it is useful to distinguish different types of disclosures – those of structure, those of theory, those of utility, and those of advantage.

In respect of structure, it is noted in *Tektronix, Inc. v. United States*, 445 F.2d 323, 327, 165 USPQ 392 that an applicant may by amendment make “*explicit a disclosure which was implicit in the application as filed*”. However, the structural or operational element must have been necessarily present or implicit in the original disclosure. It is not enough that it might have been present.

2.3.6 Inherency – Theory

Generally, an applicant must disclose only the structure of a product or the operation of a process. The applicant need not disclose or even understand the scientific theory explaining how the invention achieves its aim. Accordingly, the decisions generally allow an applicant to add or even alter disclosures as to theory of the invention. In *Michigan Carton Co. v. Sunterland Paper Co.*, 29 F.2d 179 (6th Cir. 1928), the court stated that “*if an inventor comes to better understand the principles of his invention while his*

application for patent is pending, an amendment of this claim to conform thereto does not introduce any original matter nor enlarge his invention, and is within his legal rights”.

On the other hand, as the Supreme Court recognized in *Steward v. American Lava Co.*, 215 U.S. 161 (1909), in some cases the contours of the disclosed invention cannot be adequately understood apart from the theory, and amendment to the statement of theory will constitute new matter.

2.3.7 Inherency – Utility

In *ex parte Ayers*, 108 USPQ 444, it is stated that if an original application contains no adequate assertion of utility, an amendment adding such an assertion is objectionable on new matter grounds.

A more difficult problem arises when the applicant seeks to add a new use or change the original statement of utility. In *In re Davies* (1973), 475 F.2d 667, 177 USPQ 381 (CCPA 1973), the Court held that if an application wishes to rely on a given use for a product or process as evidence of patentability, that use must appear in the specification. However, it also held that a continuation application could be filed with the additional disclosure of the omitted use without loss of the benefit of the original application as the claimed subject-matter.

However, this decision is discussed controversially. Arguably, the applicant should not be able to add an entirely new use by amendment.

2.3.8 Inherency – Advantages and Properties

A number of decisions allow an applicant to rely on advantages or properties that flow inherently from the claimed subject matter when used in the disclosed manner as evidence of patentability. As the Court of Customs and Patent Appeals noted in *In re Slocombe*, 510 F.2d 1398, 184 USPQ 740 (CCPA 1975), *“there is no requirement that superiority over prior art be disclosed in the application; it is enough if the basic property or utility in which the*

advantage resides is disclosed". Accordingly, these decisions allow an applicant to add by amendment statement as to advantage. In Ex part Douschkess, 47 USPQ 525, for example, the applicant was allowed to add and rely on solubility as a feature of the originally claimed mixture of normal magnesium carbonate and acetyl salicylic acid.

On the other hand, a number of Supreme Court decisions suggest without clearly holding that inherent advantages cannot be relied on without disclosure and cannot be added by amendment (e.g. In re Smythe, 480 F.2d, 1376, 178 USPQ 279 (CCPA 1973)).

2.3.9 Omission of a Limitation

Under certain circumstances, omission of a limitation can raise an issue regarding whether the inventor had possession of a broader, more generic invention. (See Gentry Gallery, Inc. v. Berkline Corp., 134 F.3d 1473, 45 USPQ2d 1498(Fed.Cir. 1998). In this case, claims to a sectional sofa comprising, i.a. a console and a control means, were held invalid for failing to satisfy the written description requirement where the claims were broadened by removing the location of the control means.

In Tronzo v. Biomed, 156 F.3d 1158-59, 47 USPQ2d 1833 (Fed.Cir.1998), claims to generic cup shape were not entitled to filing date of the parent application which disclosed "*conical cup*" in view of the disclosure of the parent application stating the advantages and importance of the conical shape. In re Wilder, 736 F.2d 1516, 222 UPSQ 369 (Fed.Cir. 1984) the reissue claim omitting "*in synchronism*" limitation with respect to scanning means and indexing means was not supported by the original patent's disclosure in such a way as to indicate possession, as of the original filing date, of that generic invention.

A claim that omits an element which applicant describes as an essential or critical feature of the invention originally disclosed does not comply with the written description requirement. In re Sus, 306 F.2d 494, 504, 134 USPQ 301, (CCPA 1962), it was stated that one skilled in this art would not be taught by the written description of the invention in the specification that any "*aryl or*

substituted aryl radical” would be suitable for the purposes of the invention but rather that only certain aryl radicals and certain specifically substituted aryl radicals would be suitable for such purposes.

In *re Peters*, 723 F.2d 891, 221 USPQ 952 (Fed.Cir. 1983), in a reissue application, a claim to a display device was broadened by removing the limitations directed to the specific tapered shape of the tips without violating the written description requirement. The shape limitation was considered to be unnecessary since the specification, as filed, did not describe the tapered shape as essential or critical to the operation or patentability of the claim. A claim which omits matter disclosed to be essential to the invention as described in the specification or in other statements of record may also be subject to rejection under 35 U.S.C. 112, para. 1, as not enabling, or under 35 U.S.C. 112, para. 2. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

2.3.10 Addition of Generic Claim

The written description requirement for a claimed genus may be satisfied through sufficient description of a representative number of species. A “*representative number of species*” means that the species which are adequately described are representative of the entire genus. Thus, when there is substantial variation within the genus, one must describe a sufficient variety of species to reflect the variation within the genus. The disclosure of only one species encompassed within a genus adequately describes a claim directed to that genus only if the disclosure “*indicates that the patentee has invented species sufficient to constitute the genus.*” According to *Enzo Biochem*, 323 F.3d 966, 63 USPQ2d 1615, “*a patentee will not be deemed to have invented species sufficient to constitute the genus by virtue of having disclosed a single species when the evidence indicates ordinary artisans could not predict the operability in the invention of any species other than the one disclosed.*” In *re Curtis*, 354 F.3d 1347, 1358, 69 USPQ2d 1274, 1282 (Fed. Cir. 2004), claims directed to PTFE dental floss with a friction-enhancing coating were not supported by a disclosure of a microcrystalline wax coating where there was no evidence in the disclosure or anywhere else in the record

showing applicant conveyed that any other coating was suitable for a PTFE dental floss. On the other hand, there may be situations where one species adequately supports a genus. In *re Rasmussen*, 650 F.2d 1212, 1214, 211 USPQ 323, 326-27 (CCPA 1981), the disclosure of a single method of adheringly applying one layer to another was sufficient to support a generic claim to “*adheringly applying*” because one skilled in the art reading the specification would understand that it is unimportant how the layers were adhered, so long as they are adhered. In *re Smythe*, 480 F.2d 1376, 1383, 178 USPQ 279, 285 (CCPA 1973), the phrase “*air or other gas which is inert to the liquid*” was sufficient to support a claim to “*inert fluid media*” because the description of the properties and functions of the air or other gas segmentizing medium would suggest to a person skilled in the art that appellant’s invention includes the use of “*inert fluid*” broadly. However, in *Tronzo v. Biomet*, 156 F.3d 1154, 1159, 47 USPQ2d 1829, 1833 (Fed.Cir. 1998), the disclosure of a species in the parent application did not suffice to provide written description support for the genus in the child application. Similarly, in *re Gosteli*, 872 F.2d 1008, 10 USPQ2d 1614 (Fed.Cir. 1989), generic and subgeneric claims in the U.S. application were not entitled to the benefit of foreign priority where the foreign application disclosed only two of the species encompassed by the broad generic claim and the subgeneric Markush claim that encompassed 21 compounds.

2.3.11 Narrowing of the Claim; Subgeneric Feature

The introduction of claim changes which involve narrowing the claims by introducing elements or limitations which are not supported by the as-filed disclosure is a violation of the written description requirement of 35 U.S.C. 112, first paragraph. In *Fujikawa v. Wattanasin*, 93 F.3d 1559, 1571, 39 USPQ2d 1895, 1905 (Fed. Cir. 1996), it was stated that a “*laundry list*” disclosure of every possible moiety does not constitute a written description of every species in a genus because it would not “*reasonably lead*” those skilled in the art to any particular species. In *re Ruschig*, 379 F.2d 990, 995, 154 USPQ 118, 123 (CCPA 1967), it was outlined that if n-propylamine had been used in making the compound instead of n-butylamine, the compound of claim 13 would have resulted. Appellants submitted that an imaginary

specific example patterned on specific example 6 by which the above butyl compound is made so that it can be seen that a simple change would have resulted in a specific supporting disclosure being present in the present specification. The trouble is that there is no such disclosure. In *Ex parte Ohshiro*, 14 USPQ2d 1750 (Bd. Pat. App. & Inter. 1989), the board affirmed the rejection under 35 U.S.C. 112, first paragraph, of claims of an internal combustion engine which recited *“at least one of said piston and said cylinder (head) having a recessed channel.”* The board held that the application which disclosed a cylinder head with a recessed channel and a piston without a recessed channel did not specifically disclose the *“species”* of a channeled piston.

While these and other cases find that recitation of an undisclosed species may violate the description requirement, a change involving subgeneric terminology may or may not be acceptable. Applicant was not entitled to the benefit of a parent filing date when the claim was directed to a subgenus (a specified range of molecular weight ratios) where the parent application contained a generic disclosure and a specific example that fell within the recited range because the court held that subgenus range was not described in the parent application. In *re Lukach*, 442 F.2d 967, 169 USPQ 795 (CCPA 1971). On the other hand, in *Ex parte Sorenson*, 3 USPQ2d 1462 (Bd. Pat. App. & Inter. 1987), the subgeneric language of *“aliphatic carboxylic acid”* and *“aryl carboxylic acid”* did not violate the written description requirement because species falling within each subgenus were disclosed as well as the generic carboxylic acid. Also in *re Smith*, 458 F.2d 1389, 1395, 173 USPQ 679, 683 (CCPA 1972) it was said that *“whatever may be the viability of an inductive-deductive approach to arriving at a claimed subgenus, it cannot be said that such a subgenus is necessarily described by a genus encompassing it and a species upon which it reads”*.

2.3.12 Range Limitations

With respect to changing numerical range limitations, the analysis must take into account which ranges one skilled in the art would consider inherently supported by the discussion in the original disclosure. In the decision in *re*

Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976), the ranges described in the original specification included a range of “25% and 60%” and specific examples of “36%” and “50%.” A corresponding new claim limitation to “at least 35%” did not meet the description requirement because the phrase “at least” had no upper limit and caused the claim to read literally on embodiments outside the “25% to 60%” range, however a limitation to “between 35% and 60%” did meet the description requirement.

In *Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1328, 56 USPQ2d 1481, 1487 (Fed.Cir. 2000), it was stated that the specification does not clearly disclose to the skilled artisan that the inventors considered the ratio to be part of their invention. The written description requirement was not satisfied because the disclosure revealed a broad invention from which the later-filed claims carved out a patentable portion.

2.4 Effect on Claim Validity – Reference to PTO Determination

In infringement suits, the courts give great weight to the PTO’s determination. As the court noted in *Hadco Products, Inc. v. Lighting Corp. of America*, 312 F. Supp. 1173, 165 USPQ 496, this goes beyond the normal presumption of validity.

“Courts have stated that the action of the Patent Office in permitting an amendment constitutes an implicit determination that no new matter is included therein. Such a determination, it is said, is entitled to special weight and should not be disturbed unless clearly erroneous. It should be noted that the reason underlying this rule is clear and quite different from that giving rise to the general statutory presumption of a patent’s validity. Concerning the latter it has been noted that the considerations taken into account by the Patent Office, and the vantage point from which it approaches the issue of validity, are often different from those of a court in an infringement suit. For this reason, the force of the general statutory presumption of validity is weakened considerably. ... On the other hand, the approach to the issue of new matter is the same for both the patent examiner and the court. Thus

increased weight is accorded the former's determination in this regard."

In *Brooktree Corp. v. Advanced Micro Devices, Inc.*, 977 F.2d 1555, 24 USPQ 2d 1401 (Fed. Cir. 1992), the Federal Circuit confirmed the special deference owed PTO decisions on what constitutes new matter.

"A patent is presumed valid, ... and this presumption is based in part on the expertise of patent examiners presumed to have done their jobs ... this presumption, which may be viewed as a presumption of administrative correctness, as applied to a new matter determination was discussed by our predecessor court, which stated that "the fact that the Patent Office allows ... an amendment without objection thereto as new matter ... is entitled to an especially weighty presumption of correctness.""

Comparison
- Of Certain Issues between European Patent Practice and
US Patent Practice -

3.1 **General**

It is interesting to see that US case law and European case law have gone very similar ways in respect of allowability of amendments or, as usually defined in US law, the introduction of new matter.

Certain areas have been identified in the case law to which solutions have been found in a quite concise manner. There are other areas where the solutions given by leading decisions are difficult to be brought in conformity with the possibilities and the intentions of the applicants.

In some areas US and European case law came to exactly the same conclusions, whereas in other areas quite different solutions are provided as will be seen in the following.

3.2 **Clarifications and Correction of Errors**

According to US case law, an amendment to the specification does not violate the new matter rule as long as it only clarifies the original disclosure (Hobbs v. Beach). But it is also accepted that it is difficult to draw the line between permissible clarification and impermissible addition as stated in Harries v. Air King Prods. Co.

According to European case law the deletion of a feature in a claim was considered admissible because the sole purpose of such deletion was to clarify an inconsistency (T172/82) and in T271/84 it was stated that an amendment to a claim to clarify an inconsistency did not contravene Art. 123 (2) EPC if the amended claim had the same meaning as the unamended claim, on its true construction and the context of the specification. In respect of clarifications US and European case law are quite in line.

According to US case law, errors can be corrected, however, whether a correction is permitted depends on the facts of each case and the significance of the modification as expressed in *Ex parte Maizel*.

The European patent law has on the one hand the provision of rule 139 according to which the correction of errors is on request, however, the correction must be obvious in the sense that it is immediately evident that nothing else would have been intended than what is offered as the correction. If a correction of an error is non-obvious, article 123(2) EPC applies and the standard that the correction must be “clearly and unambiguously” based on the original disclosure applies (T13/83).

Consequently, a correction of errors is handled on quite different standards if US practice is compared with European practice.

3.3 Incorporation by Reference

According to US case law it is accepted that instead of repeating some information contained in another document, an application may attempt to incorporate the content of another document or part thereof by reference to the document in the text of the specification. If later information from this document referred to is incorporated into the specification this is not regarded as new matter (see *In re Hawkins*).

European case law is very similar. A reference to another document for further disclosure is principally possible (see T6/84), however, it must be clear from the original disclosure that this description, to which reference is made, is part of the invention, namely forms part of the solution to the technical problem underlying the invention claimed (T689/90).

Consequently, US and European case law have developed a very similar approach to the possibility of relying on additional disclosure by incorporation by reference. A wording like “the preparation process is described in patent No. ...” or “the catalyst used in the process of preparation is described in detail in patent No. ...” can be used to incorporate a part or all of the description from the patent reference is made to into the application, if desirable or necessary. It has, however, to be

ascertained that the mentioning of the reference is indeed in connection with the invention being described in the application.

3.4 Inherency – Structure, Theory and Utility

According to US case law, information to structure, theory or utility can be added to the disclosure without being regarded as new matter as long as they were inherently disclosed in the original specification (see e.g. Tektronix, Inc. v. United States).

In this respect, European case law is completely different. It is not possible to add any disclosure to the specification at all and an additionally added feature to the claim must have basis in the original application in a way which is “clearly and unambiguously”. On the other hand, European case law does not require that the inventor must understand the theory behind his invention (see T783/95, T1796/07).

In respect of utilities, such features cannot be incorporated in the claim if not clearly and unambiguously disclosed, but on the other hand, and this is important in patent practice, the applicant can rely for the discussion of inventive step on utilities and advantages even if described very vaguely or even if presented with later experimental data. According to established European jurisprudence, an advantageous effect can be demonstrated by comparative tests vis-à-vis the closest prior art (T197/86, T234/03, T378/03).

3.5 Generalization

Generalization comes into place when limitations of the claim are omitted. The case law has made a clear distinction between essential or critical features of the invention originally disclosed and non-essential features where, when essential features are omitted, there is no compliance with the written description requirement (In re Peters).

The European case law developed the same distinction between essential and non-essential features. If a feature is described as non-essential, it can

be deleted from the claim without violation of Art. 123(2) EPC, whereas if a feature is described as an essential feature of the invention, such feature cannot be deleted because the amended description would contain subject-matter which extends beyond the content of the application as filed – namely information that such feature was not an essential feature of the invention (T133/85, T269/85).

In respect of this concept, US practice and European practice follow the same path.

3.6 Criteria of Evaluation

US case law has not developed any specific criteria, however, the European case law has done this.

The law itself simply requires that an application or patent may not be amended in such a way that it contains subject matter which extends beyond the content of the application as filed. European case law has not concentrated so much on “*whether an amended claim contains subject-matter which extends beyond the content of the application as filed*” but rather looks at the basis for the amendment in the original disclosure. The relevant question to be decided assessing whether an amendment adds subject-matter extending beyond the content of the application as filed is whether the proposed amendment was directly and unambiguously derivable from the application as filed. With this established case law, the focus shifted more to a question of finding a basis for the amendment instead of assessing whether the subject-matter extends beyond the content of the application as filed. The criterion established by case law, namely “*directly and unambiguously*” is restrictive and, as applied usually in a very formalistic way, a criterion difficult to be handled in praxis. The Enlarged Board of Appeal confirmed in its very recent decision G2/10 that an amendment can be only made within the limit of what a person skilled in the art would derive directly and unambiguously, using common general knowledge,

and seen objectively and relative to the date of filing, from the whole of the documents as filed.

This generally accepted criterion was even more strictly interpreted by some boards with the expression “*beyond any doubt*” or even by “*beyond any reasonable doubt*” which in practice means more or less “*expressis verbis*” which boils down to a very formalistic approach.

The consequence therefrom is that although the general principles developed in US and European patent practice are very similar, this extremely strict application of the law in respect to amendments leads to a much less liberal attitude of allowing amendments in European patent practice and with a great number of patents being revoked in opposition proceedings.

3.7 Selection; Sub-Generic Feature

In cases where the original disclosure relies on a description in very generic form, e.g. a complex general chemical formula, when a limitation becomes necessary of that feature in generic form to the feature in sub-generic form, case law and praxis are complex.

As stated in *Fujikawa v. Wattanasin*, a “laundry list disclosure of every possible moiety does not constitute a written description of every species in a genus because it would not “reasonably lead” those skilled in the art to any particular species. This legal view is in contrast to the usual understanding of a general formula by the scientist, i.e. the person skilled in the art, namely that it is the very purpose of such a general formula to describe by this formula a group of chemical compounds which should act in the same or similar way in order to achieve the desired result of the invention. The problem cannot be solved by listing individual or possible combinations of the compounds covered by the generic formula *expressis verbis*. This would resemble a “laundry list” even more. The aspect that there must be a certain guidance for those skilled in the art to particular species has definitely its logic, but is contrasted by the necessity that when the claim must be limited

to a broader sub-genus instead of just a few specific compounds as e.g. mentioned in the examples, this must be possible in order to give the applicant a reasonable scope of protection. If this goal is not achieved, the patent system will not provide for what it is set up for, namely to give the applicant adequate protection for his invention, which he has disclosed to the general public.

The same situation is experienced in European Patent Law. In T1863/06, the board stated that the application as originally filed must not be treated as something in the nature of a reservoir from which it would be permissible to combine different individual features pertaining to preferred embodiments in order to create artificially a particular new embodiment, unless the application as originally filed itself suggests such a combination of features. Other decisions like T1265/04 and T972/04 use the expression “individualized” meaning that the sub-genus, to which the claim is limited, must have been individualized in the original application. This is a criterion which, when drafting an application where the invention is based on a general formula is quite impossible to fulfill.

It is interesting to see that in both jurisdictions the case law is trying to solve this complex situation and it seems that the answer lies in the conclusion that these cases can be solved only on a case-by-case basis.

3.8 Range Limitations

A limitation of an originally broader range to a narrower range lying inside the broader range is an area of similar difficulty as the selection to a sub-generic group and where therefore a lot of case law exists in both jurisdictions.

A great number of cases can be solved when the original disclosure contains a description of preferred narrower ranges, e.g. in the form: temperature between 60°C and 85°C, preferably 70°C to 80°C. According to established European case law (see T925/89), in such a scenario the applicant is also entitled to combine the end value of the preferred range on one side with the end value of the broader range on the other side of the ranges, namely

70°C to 85°C or 60°C to 80°C, however, not 60°C to 70°C or 80°C to 85°C. In a similar way, in *In re Wertheim*, the range of “25% to 60%” was allowed to be limited to a range of “35% to 60%”, whereby one example disclosed a value of 36%.

For a scientist it is difficult to understand why a limitation to the range of 80°C to 85°C should not be possible based on the understanding that a range does not disclose all the individual values inside the range. For a person skilled in the art the value of 80°C is of course to be understood as mentioned if a range of 60°C to 85°C is originally disclosed.

Indeed, in the decision of the German Supreme Court “Crackkatalysator”, BGH X ZP 10/88, GRUR 1990, 510, it was stated:

“The person skilled in the art will understand the disclosure of the range in that respect that the invention comprises all possible values within the range”.

The European case law did not follow this approach which is indeed based on a technical understanding of such a physical range but found like in T985/06 that it is true that the range includes all values within the range, however, the application discloses only the range in general but not clearly and unambiguously all values within it.

The reason for such a different approach is that later selection inventions would be made impossible if the line would be adopted that a range discloses all numerical values within it. So, if for instance it would have been found later that in the small range of 70°C to 75°C a specific and different effect would be reached, a further patent could be granted on that limited range based on this specific selection. In this respect, reference is made to e.g. T198/84, T279/89.

The European case law is very restrictive to base a range on a specific value of an example by applying the principle that a certain value of a specific example is closely associated with the other features of that example (T201/83; T876/06).

3.9 Omission of a Limitation or Deletion of Features

In both jurisdictions, a distinctive difference is made between “essential” and “non-essential” features.

Non-essential features can be deleted from a claim if the feature is described in the specification not as essential or critical, like in *In re Peters*. Likewise, in T331/87, the deletion of a non-essential feature was allowed as long as the skilled person would clearly and unambiguously recognize that the feature was not essential and indispensable for the function of the invention.

In contrast thereto, the deletion of an essential feature from a claim is not permissible. In *Tronzo v. Biomet*, the deletion of a feature, which was stated to be advantageous and important, was not regarded as supported by the original disclosure. Likewise, T260/65, followed by a number of confirming decisions, stated that it was not permissible to lead from an independent claim a feature which the application as originally filed consistently presented as being an essential feature of the invention, since this would constitute a violation of Art. 123(2) EPC.

The comparison of the case law shows that in respect of this issue the case law of both jurisdictions is in line.

3.10 The “Trap”

To illustrate the “trap” problem outlined under 1.2.17, the following example may serve. A claim with features A, B and C was further limited by introduction of feature D during the examination procedure and a patent was granted. In post-grant opposition proceedings, the Board of Appeal concluded that feature D is based on an unallowable amendment and introduces new matter. In order to the patent to be maintained in opposition proceedings, this feature must be deleted to comply with Art. 123(2) EPC. However, by deleting a limiting feature the claim is necessarily broadened vis-à-vis the granted claim and therefore, the scope of protection extended, which is a violation of Art. 123(3) EPC.

In the US patent system, such a trap situation did not exist because there was no opposition system and in infringement proceedings patent claims cannot be re-drafted. With the introduction of an opposition system in the United States, similar difficulties are prone to arise for the applicant.

Interestingly, the President of the European Patent Office asked for an opinion of the Patent Law Committee in respect of a revision of Art. 123 EPC in order to eliminate this “*inescapable trap*” created in the European Patent Law. The background was that the German Patent Law has found two solutions to avoid this harshness. In the opinion of the Patent Law Committee both proposals were rejected and the advantages of the present system were laid out and it was underlined that the responsibility for inadmissible amendments would, as in the past, lie firmly with the applicant, who would know that amendments extending the subject-matter beyond the content of the application as filed, could lead to revocation of the patent.

3.11 Effect on Claim Validity

In US infringement suits the courts give great weight to the PTO’s determination where the amendments conducted during prosecution constitute new matter (Hadco Products, Inc. v. Lighting Corp. of America).

The European system is different. The European patent granted by the European Patent Office becomes a bundle of national patents, e.g. German, British and French, depending on the intention of the applicant. Infringement and revocation systems vary from country to country. In Germany, where more than 80% of all European infringement proceedings are conducted, the Infringement Court does only deal with the question of infringement but not with validity, which is to be determined by revocation action at the Federal Patent Court. The Federal Patent Court makes his opinion on allowability of amendments during examination completely independent and as mentioned, the Infringement Court does not deal with this question at all, so that the decision of the European Patent Office in respect of the allowability of an amendment does have no consequence in proceedings the patent might be involved in future.

3.12 Conclusion

The comparison made reveals that in many areas of amendments exactly the same solutions are provided by US case law or European case law. A good example is the area of incorporation by reference.

In other areas like limitation of ranges or forming of new sub-generic features the case law is much more complex. Similar approaches are developed in the respective case law but due to the complexity of the matter, a clear guidance is not really visible and the approach will remain that the cases have to be decided on a case-by-case basis.

A clear difference between the two jurisdictions is the development of the European criterion that the amendment must be derivable “*clearly and unambiguously*” from the original disclosure. As this criterion is applied in many cases in a formalistic way, the effect is that in daily practice the allowability of amendments or the introduction of new matter plays a much more distinct role in the European system than in the US system. This is specifically true in opposition procedures where in most cases the opponent brings up Art. 123(2) EPC objections, namely unallowed amendments, and, indeed, many patents are revoked on this ground of opposition. The so-called “trap” described in 1.2.17 is one of the reasons why patents are revoked in opposition proceedings.

With the introduction of opposition proceedings in the United States it can be assumed that the question of unallowed amendment or introduction of new matter will play a much greater role in future.

AMENDMENTS 2

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