The Principles of the Doctrine of Equivalence in Germany

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1. Introduction

The following comments refer to the extent of protection, also called "scope of protection" of German patents and European patents granted for Germany. In particular, the basic principles for an extended patent claim interpretation with the so-called "doctrine of equivalence" (not "doctrine of equivalents" as erroneously used by many authors) will be discussed.

2. The Extent (Scope) of Protection of a Patent According to Section 14 of the 1981 German Patent Act (GPA)

The extent (scope) of protection of a patent in Germany has its legal basis in Section 14 GPA which reads as follows:

"Section 14 GPA

Extent of Protection

The extent of protection conferred by a patent or a patent application shall be determined by the terms of the claims. Nevertheless, the description and drawings shall be used to interpret the claims."

When applying Section 14 GPA in claim interpretation, it is important to also consider Article 69 EPC. Article 69(1) EPC is virtually identical with Section 14 GPA.

3. The Range of Equivalence

There is general agreement that the extent (scope) of protection is not limited to the identical use of the features given in the claim but also extends to equivalent embodiments if the person skilled in the art is able to recognize the latter as being equally effective. Thus, the scope of protection of a patent also embraces embodiments which are covered by the "terms" of the claims to be determined by interpretation.

According to Article 69(1) EPC and the corresponding Section 14 GPA, the patent claims are now, contrary to former German judicial patent law, not only the starting point but also the relevant basis for determining the scope of protection of a patent. The scope of protection is exclusively determined by the terms of the claims and the extent of the inventive idea which has found expression in the patent claims. Thus, the scope of protection according to Section 14 GPA is not restricted to the wording of the patent claims but is defined by their "terms" which have to be determined by interpretation ("Auslegung").

4. The Determination of the "Terms" (Subject Content) of Patent Claims

4.1 The interpretation of the patent is one of the responsibilities of the judge in infringement proceedings. The main emphasis is placed on the invention as contained in the patent claims. The technical problem (object) of the invention is analyzed on the basis of the understanding of a person skilled in the relevant technical field. The technical problem and the features contributing to the solution of the technical problem constitute the technical teaching which the person skilled in the art, interpreting the patent claims, is able to derive from them at the filing date or priority date without special deliberations.

4.2 The crucial question in claim interpretation is how the person skilled in the art reads and understands the terms used in the claims and what specific conclusions he will draw from these terms and the inventive idea presented to him; see BGH decisions GRUR 1983, 497, 498 - Absetzvorrichtung, and GRUR 1984, 425, 426 - Bierklärmittel.

5. Principles for the Extended Interpretation of a Patent Claim; Doctrine of Equivalence

5.1 The skilled person's general technical knowledge at the priority date is decisive for assessing the disclosure content of the patent application or patent.

5.2 The scope of protection of patent claims cannot extend beyond the disclosure content of the patent application or patent in its originally filed version.

5.3 The scope of protection of a patent is determined not only by assessing the literal wording of the patent claims (cf. Protocol on the Interpretation of Article 69, 1st sentence, EPC), but by rather evaluating the "terms of the claims" (cf. Section 14 GPA) which also includes evaluating equivalent embodiments for their patent-infringing nature; see German Supreme Court (BGH) in GRUR 1986, 804 - Formstein.

According to German case law, equivalence between the infringement form and the patented subject matter is evaluated by taking the skilled person's knowledge at the priority date of the patent in suit into consideration. Equivalence is evaluated by comparing the function of the features of the patent claim which contribute to the solution of the technical problem of the patent in suit with the function of the features of the infringement form. Here, the decisive question is whether the skilled person having knowledge of the claimed invention will be able to solve the technical problem underlying the patented invention with modified but equivalent means, i.e., whether he will arrive at the desired result with other (modified) means which also lead to the desired result.

The definition of the German Supreme Court of what is considered to represent an equivalent infringement within the boundaries of Section 14 GPA (or Art. 69 EPC) and in compliance with the "Protocol on Art. 69" can be summarized as follows:

"A patented invention is considered to be infringed if the person skilled in the art is able on account of his technical knowledge (available to him at the priority date of the patent) to identify the modified means employed in the challenged infringement form as being equally (equivalently) effective in the solution of the problem underlying the invention, said identification having to be based on the subject content of the patent claim, i.e. on the patented invention as described in the patent claims (see e.g. the Higher District Court of Düsseldorf in Epilady VIII - GRUR Int. 1993, 242 referring to BGH in GRUR 1988, 896, 899 - Ionenanalyse)."

Thus, the scope of the patent usually covers those means which the skilled person, by deliberations based on the subject content of the patent claims, i.e. by studying the invention as described in the patent claims and by drawing on his technical skills finds to be equivalent in solving the problem. In other words, when the means of solving the problem of the infringement form correspond with the features stated in the patent claims with respect to their technical function and when these means of solving the problem lead to (substantially) the same effect, then the patented invention is used, i.e., infringed in an equivalent manner.

6. Limits of the Range of Equivalence

6.1 General Principles

An important limitation by the Federal Supreme Court of the range of equivalence is the requirement of legal certainty

as emphasized in the decision "Heavy Metal Oxidation Catalyst" ("Schwermetalloxidations-katalysator"); GRUR 1989, 205, in particular page 208, bottom of right-hand column:

"The extension of the scope of protection to a method which a person skilled in the art is able to find due to his technical expertise and on the basis of the patent description but which has not found expression in the claims, is not consistent with the requirement of legal certainty."

The requirement of legal certainty is therefore an important principle which the courts have to keep in mind when determining the scope of equivalence.

In a recent decision, the German Supreme Court again confirmed their old principle saying that the range of equivalence may not cover an embodiment which is based on an inventive step (inventive effort) vis-à-vis the patented teaching -BGH Zerlegvorrichtung für Baumstämme (Cutting Device for Tree Trunks) - Mitt. 1994, 181.

As for Germany, the times have gone when the infringement courts, in cases where one or more features were missing in the Plaintiff's patent because the Patentee had forgotten to insert them into the claims, would readily insert the missing parts into the claims ex officio, if these parts were disclosed in the description. This is usually no longer done, which should therefore be an incentive for applicants to draft claims "intelligently", considering that it is not the Court's task to detect what the inventor intended to claim but what he/she had claimed in actual fact.

6.2 Subcombinations and Incomplete Working

Very often it turns out that, in fact, a challenged embodiment does not make use of all features of the patent claim, although the patented result is achieved. In these cases, the question arises, whether the scope of the patent still covers an embodiment which lacks one or more features of the claim. Under the doctrine of equivalence, these embodiments may still fall under the patent claim if claim interpretation leads to the conclusion that the protection can be extended to "sub-combinations" of the protected elements or even to single elements ("element protection").

Under the old German Patent Act, the courts have occasionally affirmed protection for sub-combinations (see e.g. BGH in Kunststoffhohlprofil, GRUR 1977, 251 or Diarähmchen V, GRUR 1971, 78).

The 1981 German Patent Act marks the end of the era of extremely liberal claim interpretation. The question now is: What rules regarding partial protection are given in the most recent Supreme Court decisions. The current opinion in Germany is as follows:

a. In a comparative law article, Bruchhausen, the late Presiding Judge of the Patent Chamber of the German Supreme Court (BGH), pointed out (GRUR Int. 1974, 1 and 5 IIC 1974, 270) that the German law even after harmonization with the European Patent Convention, does not necessarily rule out the principle of sub-combinations. In this article, Bruchhausen makes the following interesting remark

"Theoretical discussions often refer to a case where the patent claim defines the invention by means of features A, B, C and D and where the Defendant while using features A, B and C does not use feature D. The problem cannot be solved arithmetically."

In Judge Bruchhausen's opinion, there may be cases in which the inventor could and rather should have claimed not only A, B, C, D but should also have drafted claims covering the sub-combination A, B, C. Probably, in a case where there are only claims covering A, B, C and D, protection will not be granted for the sub-combination A, B, C in the

absence of a corresponding subclaim.

However, there may be cases in which feature D is just an "insignificant feature". In this case, the patent might cover the sub-combination A,B,C under the doctrine of equivalence. According to Bruchhausen, it is not possible at the time when the patent claims of the application are drafted to foresee precisely what the situation of a challenged embodiment will be in the future.

However, the BGH has very recently emphasized (without having to decide on this question) the highly exceptional character of a sub-combination (BGH Räumschild, GRUR 1999, 977).

The use of an embodiment which does not achieve the full effect (the complete result) of the patented teaching (the subject matter of the patent claim) is nevertheless considered a patent infringement when it achieves the essential advantages of the patented invention to a practically significant extent. This even applies when the contested embodiment does not achieve the same advantages of the patent but only an inferior effect, or if the infringer achieves the object of the patented teaching only in an incomplete manner (also called "incomplete working" or "inferior solution"); BGH in GRUR 1955, 29, 31 –Nobelt-Bund; GRUR 1985, 520, 522 – Konterhauben-Schrumpfsystem; GRUR 1987, 281, 281 – Befestigungsvorrichtung.

By contrast, the contested embodiment is not considered an infringement if it completely lacks the advantages of the patented invention (RG in Mitt. 1930, 192, 193), if the embodiment deliberately refrains from achieving the advantages of the patented invention to a practically significant extent (BGH Spannschraube GRUR 1999, 909), or if it deliberately accepts the disadvantages and imperfections which the patented invention is intended to remove; BGH in GRUR 1955, 29, 31 – Nobelt-Bund; GRUR 1962, 572, 576 – Standtank, with further references. In the decision Spannschraube (Straining Screw) the BGH points out that their view is in complete agreement with the comparable UK jurisdiction, as laid down by the English House of Lords in Catnic versus Hill & Smith (RPC 1982, 183 = GRUR Int. 1982, 136).