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The Evaluation of the "Inventive Step" in the European Patent System - More Objective Standards Needed - Part One¹

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¹ 9 IIC 1 (1978)



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Introduction

Outside observers consider the integrated model of the Munich and Luxembourg Patent Convention a fantastic masterpiece of legislative technique and draftmanship 1) - worthy of being called Wagnerian in its scope and thoroughness. 2)

Before this masterpiece can be played in full harmony, quite a few practical rehearsals will still be called for, in which a number of initial discords are sure to be heard. The multilingual score as well as the multinational composition of the orchestra are certain to contribute to this effect. 3)

The endeavour to develop uniform methods of interpretation will therefore be one of the main concerns of the different organs of the European Patent Office.

Among the many crucial questions 4) of the European patent law, the level of patentability or inventiveness is probably the most important one. On this issue, uniformity in practice is not only called for by applicants but seems to be decisive for the success or failure as well as the attractiveness of the whole system. 5)

Much has been said concerning the effect of the level of official fees upon the strategy of applicants - single inventors as well as companies. To be sure, the deterring effect which might be created by an excessively high European schedule of fees should not be underestimated. 6) A particularly critical situation may, however, arise if, in addition to the high fees which the applicant risks, he is also faced with extreme uncertainty with respect to his chances of obtaining a patent at all. Inventors, and among them especially large companies which primarily must be regarded as potential applicants for European patents, will certainly think twice before they will undertake expensive granting proceedings, if the percentage of valid patents is not only very small, but, beyond that, if it is unforeseeable which inventions are deemed patentable and which are not. 7) In addition to such financial loss, there is -



in view of the procedure of automatic publication - the loss of a research lead, which is financially much more prejudicial. 8) In an atmosphere of general uncertainty with a low percentage of valid patents, there would be an increased inclination to keep inventions secret and to apply for patents only in cases where the characteristics of the inventions can only be kept secret for a very short time, or to use the well-known national procedures to the disadvantage of the European patent system. 9)

In talks with patent attorneys of larger European and American companies one does not gain the impression that the start of the European Patent Office will be a very promising one. It is already apparent that, for financial reasons, applicants will probably choose the national route if they are only interested in patent protection in three or fewer countries. On the other hand, a reluctant hesitation seems to be developing almost uniformly in the case of multiple applications in more than three countries, i. e. for the more important inventions. Applicants and their patent counsels feel uncertain as to the possible attitude of the European examination authorities, and they are inclined to entrust their most valuable inventions to this new institution only after its mode of operation has become more transparent. 10) Therefore, if no indication or further information is provided by the EPO, as to how the examination in Munich will be conducted, the anticipated number of applications for the EPO seems to be jeopardized, since the number of inventions of secondary importance which might be filed for testing purposes will certainly not make up the difference; 11) they would, furthermore, give a totally inaccurate picture of the real examination standard of the Office.

With good reason, therefore, the Draft of the Guidelines state, "it is on the search and examination, more than anything else, that the European Patent Office will be judged and especially on how examiners in the new Office deal with such difficult questions as inventive step. " 12)

It would certainly not be advisable if the European Patent Office, in order to make the new system more attractive to applicants, decided to lower the European standard of non-obviousness, e.g., below the present German standard 13) (which does not mean that the European standard on the other hand should be much higher than the German standard). The argument that the European standard should be adjusted to the lowest national standard in Europe, because applicants would otherwise prefer the easier route via the more lenient national systems, where patents are granted by registration or without an extensive examination for non-obviousness, could certainly have an advantage for those who have weak inventions but are nevertheless interested in monopoly rights disguised as patents. In the long run such policy could be dangerous for two reasons: in infringement or nullity proceedings the opposing party would invariably claim that the patentee had not dared to apply for a patent under an examination system, in spite of the fact that this



way would have been cheaper for him than obtaining patents in several European countries through their separate national systems. The second risk is no less significant: If in the future several parallel national patents are sought within the EC, in spite of the fact that the applicant had the choice of applying for a uniform European patent, the well-known reproach of the European Commission and the European Court of Justice, that by use of patents a division of the markets is intended, would more than likely be raised. These considerations cannot be overlooked in the future patent policy, especially as far as multinational companies are concerned.

In order to dissipate the prevailing uncertainty however, the European Patent Office must, in addition to announcing the prevailing standard which will be applied, 13a) convince the applicant at an early stage that he will himself be able to estimate his chances of obtaining a patent and that he will thereafter receive a strong title. 14)

Two requirements seem to be necessary for this objective: first, the development and application of an objective method of examination and secondly, an instrument of coordination that will ensure its application beyond all national and linguistic barriers. 15)

This article will, in Part I, deal with the office procedures and organs envisaged in both the Munich and Luxembourg Patent Conventions and their significance for the development of a uniform examination procedure for patentability. In Part II, I shall try to describe the approach to an objective method of examination for the most important condition of patentability, the problem child of patent law, namely the "inventive step" or "non-obviousness."

I. The Authorities Competent for the Determination of the Inventive Step

1. The Munich Patent Convention

a) Granting and Opposition Procedure

Under the Munich Patent Convention (MPC) the question of patentability and therefore also of the inventive step is dealt with by the examiner in the granting proceeding as well as in the opposition proceeding before the Opposition Division (Art. 101 MPC). A feature of the opposition proceeding is that it can be initiated under Art. 99 (1) MPC after the publication of the mention of the grant of the European patent. It can thus be compared to the belated opposition proceeding under Sec. 33 of the British Patent Act. 16)

Article 115, however, provides that even before that date third parties may file written objections to the patentability of the invention with the European Patent Office, after the publication of the application. This informal proce-



ture, which is not subject to any fees, corresponds to Sec. 28 a (3) (3) of the German Patent Act and may be of interest to those who want to save the costs of a European opposition proceeding. 17)

The opposition proceeding acquires its special importance by virtue of its role as a centralized invalidation proceeding, 18) since the revocation of the patent has force and effect in all designated countries (Art. 99 (2) MPC), whereas the genuine nullity proceeding must be carried out under national law and with effect only to the national part of the European patent. 19) That the mere existence of an opposition proceeding within the European patent granting procedure increases the value of a granted patent quite significantly, can be deduced from the national patent systems where such procedures exist. The percentage of later nullity or revocation proceedings in such countries is very low. 20)

An opposition may be filed or an already initiated proceeding may be continued even if the patent owner has renounced his patent rights or if the patent has lapsed for all designated states, Art. 99 (3); Rule 60 (1) MPC. This can be explained by the retroactive effect of the invalidation in an opposition proceeding. If the patent owner could renounce his patent, with an effect only *ex nunc*, he could theoretically claim damages for the past from the opposer who would be unable to prove that the patent in fact was invalid. 21)

Since the principle of an *ex officio* examination applies to the whole proceeding before the European Patent Office (Art. 114), 22) the opposer does not have the burden of proving lack of patentability nor does the patentee have the burden of proving the existence of novelty and an inventive step. In this respect the European opposition resembles the German more than the English opposition procedure, where the opposer must present a *prima facie* case of lack of patentability and where all doubts are resolved in favor of the applicant. 23) Also, Art. 99 MPC does not require any proof of legal or economic interest on the part of the opposer, as is required under British law. 24) Under European law "any person" may file an opposition.

b) Appeals Procedure

The examination for an inventive step is continued in the appellate proceedings, either on appeal from a decision of the Examining Division or from a decision of the Opposition Division, Article 106 MPC. The extent of the review by the Boards of Appeal is identical with that in the first instance, even if only the patent owner or only the opposer has filed an appeal. 25) This also means that the opposer who had asked for a partial revocation in the first instance can no longer request total invalidation, since he would not be "adversely affected" by the partial invalidation, Art. 107 MPC. 26) Although the Board of Appeal may also consider new material in its decision 27) and should even do so in order to minimize subsequent nullity proceedings, 28) it



must - because of the presumption of validity of the granted patent 29) - examine such material with special care in order to avoid an ex post examination of the already completed invention.

No further remedy is available against the decisions of the Board of Appeal, since a European instance of last resort does not exist for the granting procedure. However, legal questions can be referred to the Enlarged Board of Appeal by the Board of Appeal either upon request of a party or upon its own motion, "in order to ensure uniform application of the law, or if an important point of law arises" (Art. 112 (1) MPC). 30)

This express limitation of admissibility, which corresponds to Sec. 41 p (2) of the German Patent Act, has rightfully been regretted, since it will certainly be this Enlarged Board of Appeal which will supervise the examination method, the form and contents of decisions and last, but not least, the level of patentability of European patents. 31) It has therefore been proposed that the competence in this case is not to be left to the discretion of the Board of Appeal but to the discretion of the Enlarged Board of Appeal itself. 32) This would be similar to the writ of certiorari to the U. S. Supreme Court.

Since the MPC covers only the phase of the proceedings concluding with the grant of a European patent or the termination of the opposition proceeding, no nullity proceeding is contained in the Convention. The invalidation of patents, however, is governed by national law, so that in Germany, for example, the German Federal Patent Court in Munich would be competent for the invalidation of the German part of the European patent, at least until the coming-into-force of the Luxembourg Patent Convention where a special revocation procedure for the invalidation of the so-called Community Patent is provided for.

2. The Luxembourg Patent Convention

a) The Revocation Procedure

Contrary to the European "bundle patent" under the Munich Convention, the so-called Community Patent Convention (Luxembourg Patent Convention) of the nine EC countries provides for a centralized revocation procedure which will take place before special judicial bodies of the European Patent Office in Munich whose competence is limited to the Community Patent 33) The substantive patentability requirements of the Munich Patent Convention are applicable to this revocation proceeding (Art. 57 (1 a) LPC in conjunction with Art. 56 MPC). The application for revocation must be filed under Art. 56 LPC with the European Patent Office; it will be decided by the Revocation Division.

b) Further Appeal to the European Court of Justice



An appeal can be filed from the decision of the Revocation Division which is decided by the Revocation Board, Art. 62 LPC. A further appeal on the law to the Court of Justice of the European Communities is possible from the decision of the Revocation Boards. 34) Article 63 (2) LPC reads as follows:

A further appeal may be lodged on grounds of infringement of an essential procedural requirement and of infringement of this Convention or any rule of law relating to its application, insofar as that rule of law is not a national provision. The Court of Justice shall not examine the facts as determined in the decision of the Revocation Board.

The most important ground for the admissibility of a further appeal is the infringement of the Luxembourg Convention as well as the rules "relating to its application." Included here, of course, are the provisions of the Munich Patent Convention. In the case of an appeal from a decision revoking a patent, therefore, the interpretation of Art. 56 ("inventive step") would be reviewed by the Court of Justice, and within this context also the method of evaluation of the concept of non-obviousness. This supervision of the revocation procedure by the Court of Justice may hopefully lead to the development of a uniform decisional practice of the Revocation Division and the Revocation Board and may perhaps also influence the decisions of the Boards of Appeal although the latter do not fall under the jurisdiction of the Court of Justice. 35)

c) Preliminary Ruling by the Court of Justice

Another instance in which the Court of Justice will concern itself with the patentability requirements of the Munich Patent Convention is the request for a preliminary ruling under Art. 73 LPC in a proceeding before the national courts. 36) The text of Art. 73 (1) LPC is as follows:

1. In proceedings relating to a Community Patent which are brought before a national court or tribunal, the Court of Justice of the European Communities shall have jurisdiction to give preliminary rulings concerning:

a) The interpretation of this Convention and of the provisions of the European Patent Convention which are binding upon every Community Patent in accordance with Art. 2 (3)....

If such a question is raised in a proceeding before a court, against whose decisions no judicial remedy under national law is possible, that court must refer the matter to the Court of Justice, Art. 73 (3). The most important question in this respect will concern the scope of protection of a patent in a national infringement suit. The question of the inventive step is primarily an issue in the - centralized - revocation proceeding of the LPC. For those countries which, under national law, provide for an examination of validity in an infringement suit, Art. 90 LPC offers the possibility of a transition period of ten years (with five years' extension) to consider the validity of the patent for their respective countries, 37) in the event there has been no decision by a European body. In



such a proceeding, as it could, for example, be conducted in France, the infringement court would have the possibility - and the French Supreme Court, as the court of last resort, would even be required - to file a preliminary question concerning the interpretation of the inventive step with the European Court of Justice.

In view of this enlarged competence of the European Court of Justice a considerable increase in proceedings before that Court is to be expected. 38) One can therefore only support the call to increase the number of its judges. 39) A solution which is probably most favoured by interested circles would be the formation of a special senate whose competence would include not only the patent and trademark law but all industrial and intellectual property rights.

II. The Proposal for an Objective Approach to the Examination of the Inventive Step of European Patents

1. The Statutory Definition of the Inventive Step

a) Non-obviousness

A great deal has already been written concerning the concept of the 'inventive step,' in the Munich Patent Convention. Many authors have referred to corresponding patent requirements in some of the examining countries, in order to establish a relationship to the newly created European concept. Because of the wording of the German text which uses the expression "erfinderische Tätigkeit" ("inventive activity") instead of the traditional concept "Erfindungshöhe, " it has been argued that the European level of inventiveness will be lower than the present German level. 40)

This argument does not seem to me to be convincing. It is true that the concept of 'Erfindungshöhe,' (literally translated as "inventive height" or "inventive level") was intentionally not taken over in the Convention, in order not to induce non-German examiners, who are unfamiliar with the German practice, to apply an overly severe standard in their examination based on the literal interpretation of this word. However, the word "Erfindungshöhe, " in German practice, has no relationship to the severeness of the examination, 41) since it is defined by the Patent Office and the courts as the quality of "non-obviousness of the invention for an average person skilled in the art." The severeness of the examination, therefore, depends in reality on the interpretation of the concept of non-obviousness - the same definition which we find in Art. 56 MPC. 42) , 43) I also do not agree with the view that the German concept of "Erfindungshöhe" is open to different "correct" interpretations as to its existence in any particular case. 44) This argument would also hold true for the expression "inventive step" in the English text or for the expression "inventive activity" in the German and French texts. If these expressions were



to be interpreted literally, it would not at all be clear how big the "step" must be and how much of "inventive activity" is to be required from an inventor. Today, most practitioners and scholars agree that Art. 56 MPC does not require any specific activity on the part of the inventor. 45) In fact, a correct interpretation of the text of the Convention makes it clear that the discussion concerning the meaning of "erfinderische Tätigkeit, " "activité inventive" and "inventive step" has become meaningless since the European legislature has itself defined these concepts in the Convention, namely in Art. 56, first sentence. According to this provision, the criterion of examination is "non-obviousness to a person skilled in the art. " 46) This negative definition is not only known in the examining countries like Austria, Germany, Switzerland, the United Kingdom and the United States, but also in some registration countries like France where it was introduced by the Patent Law of 1968 and where we already find some courts attempting to apply it. 47) The textual difference between the German and English concept of non-obviousness on the one hand and the French version of the MPC (non-évident) on the other hand has already been pointed out. 48) It can be expected that the view will prevail that the concept of non-obviousness must not be interpreted as "manifestly clear" since this would lead to a lowering of the standard of inventiveness in Europe. 49)

It is also generally acknowledged that the interpretation of patentability has been simplified by the definition of Art. 56 MPC because of the objective character of this requirement. 50) From this definition it also becomes evident that in examining the inventive step only one answer seems to be theoretically possible: either an invention is obvious or it is not. 51) This theoretical result does not satisfy the practitioner, however, since he knows from experience that if several people evaluate an invention one might well get diverging answers to the question of non-obviousness. This can be explained by the fact that the concept of non-obviousness is related to two criteria: the prior art and the person skilled in the art. Therefore, the requirement for the standard of inventiveness might differ depending on the special field and the knowledge and expertise of an expert in that field. 52) To that extent, the observation is correct that a "big" or "small" inventive step is required under German law, depending on the situation. 53) However, it is incorrect, to conclude that this amounts to arbitrary discretion. In reality, as Mathély correctly observed, in spite of the objective statutory definition, it is merely the relative character of this patentability requirement which brings some uncertainty into the examination as to the predictability of a decision. 54) That this uncertainty can be reduced to a minimum, and even must be kept small in the interest of a well functioning European patent system, will be discussed below.

We can discard right off attempts at definitions which only replace the word "non-obviousness" by words like "clear" or "manifest." Such word-changes are not very helpful. 55) As a starting point, it is probably correct to say that



the evaluation of non-obviousness does not consist in the measurement of distances from the state of the art, but in a qualitative evaluation of the difficulties of the inventive solution in relation to the knowledge and experience of the person skilled in the art. 56)

b) The Person Skilled in the Art

Article 56 requires that the invention must be unobvious "to a person skilled in the art." The answer to the question who this person is already predetermines to a large extent how much effort can be expected of this allegedly fictitious person in his work and where the inventive step starts. Depending on how widely or narrowly the technical field is defined, whether we take an average person as the yardstick or the head of a research team, we raise or lower the requirements. 57) In my opinion, a "skilled person" should be defined as one who normally is the producer of the subject matter in question or to whom one would turn for the solution of a problem which has arisen in the state of the art. Therefore, it is not the future area of use but the area of manufacture which should be decisive, although the manufacturer, of course, would in certain cases find it useful to obtain information from users and also include in his deliberations neighboring fields which are normally taken into consideration in the solution of problems in his special field. 58)

Thus, a person skilled in the art is someone who is verifiable, at least in theory, one who has had an education typical for that field of the art, possessing average knowledge, qualities and also prejudices, 59) and whose knowledge is limited to the pertinent field of the art. 60) It is incorrect to argue that the very definition of this skilled person would already make the examination for an inventive step a subjective one. 61)

Since we must always look at the actual situation in industry, it is also possible that in an area of extensive research "the person" could consist of a team of research workers, if it is common practice to use a combination of several disciplines for the solution of a problem. 62)

At this point I must take issue with the view, heard now and then, that the inventive step can be objectively measured merely by the "yardstick of the average person skilled in the art." 63) As indicated, the concept of "the person skilled in the art" must itself be defined, but is very useful for the objective definition and delimitation of the pertinent art. However, the real difficulty starts when this well-defined person is confronted with the question whether an invention was obvious to him. In order to answer this question, further findings are necessary, which can also be verified by objective facts but which allow a final judgment only after a consideration of all the factors.

c) The State of the Art



Findings are particularly necessary as to the state of the art with which the invention must be compared. What is decisive is which references the skilled person is deemed to know. An examination of Arts. 54 and 56 MPC reveals that, while the Convention makes a distinction between taking into account references for the purpose of the novelty examination and the examination for an inventive step, insofar as the date of availability is concerned, it imposes no restriction on the scope of the prior art to be considered. Article 56 (2) only provides that if the state of the art also includes unpublished patent applications within the meaning of Art. 54 (3) they are not to be considered in deciding whether there has been an inventive step.

However, from the statutory definition of the inventive step it is evident that the point of reference for the inventive skill required is a person from a specific field of the art. Such a person therefore can only possess the knowledge of his particular art including neighboring fields, and need not be in possession of all available technology, whether in printed form or otherwise. 64) , 65) I, therefore, cannot share the view that the whole prior art which is considered in the examination for novelty can also be assumed to be available knowledge of the skilled person in examining the inventive step. Such a view would not only render the introduction of a skilled person meaningless but would also abolish the patentability of inventions for a new use, even if the inventive solution is taken from a distant field of technology which was totally unobvious to a skilled person - a totally unrealistic result. 66) It should be underscored that the established knowledge must be ascertained by the examiner or judge by way of documents, even when it is in the realm of "common knowledge," and that mere personal knowledge of an examiner cannot be the basis for a rejection. 67)

A brief look at the subject of examination seems to be appropriate in this context: Should the non-obviousness be established between the - properly demarcated - prior art and the result of the invention, or can the means of solution and even the inventive idea also establish the existence of an inventive step? In France the inventive result seems to be favored as the test of inventiveness; the argument is made that if the function between the means of the inventor's solution and the inventive result are obvious, the invention is not patentable so that the question whether the use and selection of these means was obvious becomes irrelevant. 68)

If this argument is correct, inventions for a new, non-obvious use would not be patentable, since they are based on a known function of means and result, the only distinction being that this function had previously been used in a distant field of technology, but not in the specific field of the person skilled in the art of the invention in question. Similarly such argument would lead to the abolition of so-called problem inventions which are characterized by the fact that the inventor recognized the problem which no one had previously perceived. Once the problem had been recognized, the solution became easy for



a person skilled in the art, so that the relationship between idea, means and result was obvious. 69)

While the emphasis of the examination should generally be put on the inventive result, this should be viewed in contrast to the inventive act, e.g., a "flash of genius" cannot be required. 70) On the other hand, difficulties which an inventor had to overcome can well be an indication of non-obviousness. 71)

d) Decisive Date of Reference

Article 56 MPC does not indicate the date when the knowledge of the skilled person must be compared with the teaching of the invention. In this respect the provision differs, for example, from 35 USC Sec. 103 in which reference is made to "the time the invention was made." However, a clarification of this question can be found in the definition of the prior art in Art. 54 (2):

The state of the art shall be held to comprise everything made available to the public by means of a written or oral description, by use, or in any other way, before the date of filing of the European patent application.

Contrary to the U.S. statute, therefore, the filing date is decisive for European applications. This, however, does not involve any change in the current European practice. 72)

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- 1) FEDERICO, 16 IDEA 33, 43 (1975).
- 2) Referred to by FEDERICO, id.
- 3) Thus BOSSUNG, 1973 Mitt. 81, at 92 hopes for a development from a "multi-voice" to a "concerted" examination; see also ARMITAGE, 1973 Mitt. 126, at 129 who pleads for a "reasonable adjustment"; also the Draft of the "Guidelines for Examination in the European Patent Office" (hereinafter referred to as "Guidelines"), General Introduction No. 2.2. mentions the possible problems resulting from the multinational system: "[Employees of the European Patent Office] should all apply the same standard and in many instances this will mean abandoning previous habits and ways of thought." Everyone knows that this goal is difficult to achieve even within national patent offices.
- 4) See BOSSUNG, supra note 3, at 94.
- 5) Cf. also PEDRAZZINI, 1976 SJZ 170, who regards the decisional practice of the European authorities as a precedence for the practice of national offices and courts.
- 6) It is, e.g., unwise from the viewpoint of increasing the number of applications to charge high application fees thereby creating a financial barrier, instead of charging higher annual fees, since the owner of an already granted patent is less reluctant to make payments in order to keep the patent in force. In this respect the proposals for the official European fees are already at the borderline of prohibitive charges. Cf. also the criteria considered from the viewpoint of U. S. industry by KALIKOW, 5 8 JPOS 723, at 730 (1976) who mentions costs as one of seven factors influencing the decision whether or not to file patents in Europe; on the financial aspect, see also BAILLIE, 58 JPOS 15 3, at 178 et seq. (1976); BARDEHLE, 1975 Mitt. 191; NETTER, 1976 CIPA 351.
- 7) See KALIKOW, supra note 6, who also mentions the predictability of patent grant as an important factor in the decision; similarly WESTON at the Conference of Strasbourg of 1974 in "L'activité inventive et l'étendue de la protection dans le brevet européen" 40 (CEIPI, 1975) (cited hereafter as Strasbourg 1974); SAVIDGE, 1976 CIPA 109; BOSSUNG, 1974 Mitt. 146, who speaks without exaggeration of "uncertain anxieties" of applicants; regarding patent examination see also KRONZ, 1975 Mitt.



73, n. 75, who speaks of an "academically sophisticated farce" with changing surprises for examiners and applicants; similarly for the German law, HUCH, GRUR 1974 67.

8) This "loss" is also regretted by WESTON, Strasbourg 1974, supra note 7, at 40.

9) This is expected by BAILLIE, supra note 6, at 184.

10) Similarly KALIKOW, supra note 6, at 731.

11) Even if the European and the national route remain open for important inventions by way of parallel applications, this possibility is excluded for the majority of inventors for financial reasons; cf. KALIKOW, supra note 6, at 732, who favors parallel applications at least until the decision on the grant of the patent.

12) General Introduction 2.1.

13) This, however, is favored from the British point of view by SAVIDGE, supra note 7, at 10; BOS-SUNG correctly points out (supra note 3, at 89) that if an examination carried out under the European system leads to the grant of more patents than under the national systems, it must not necessarily be regarded as less effective; id., 1974 Mitt. 148; cf. also the evaluation criteria of a high or low standard mentioned by PEDRAZZINI, "Das neue europäische materielle Patentrecht" 19 (1974); NETTER, 1976 CIPA 351, expects that a European patent will be more difficult to obtain today than a German, Dutch, or American patent, which will probably not be the case.

13a) This announcement has in the meantime been made. At a workshop on the concept of the "inventive step," held on January 20, 1978 in Munich which was attended by representatives of the interested circles and the staff of the European Patent Office, Mr. van Benthem, President of the European Patent Office, announced that the future European standard will be equal to the present standard of non-obviousness in Germany.

14) The infringement, revocation and nullity instances should therefore be allowed to invalidate an already granted European patent only in exceptional cases; for the American situation, cf. SHAPIRO, 17 IDEA 3 (1976).

15) The particular difficulties for harmonization, especially as to the requirement of non-obviousness, was already emphasized by Bossung, "Grundfragen einer europäischen Gerichtsbarkeit in Patentsachen" 21 (1959).

16) On the British law, see BLANCO WHITE, "Patents for Inventions" 235 et seq. (London, 1974); also VAN EMPEL, "The Granting of European Patents" 215 (Leyden, 1975); for the most part, the European granting procedure differs considerably from the British system; cf. FEDERICo, supra note 1, at 40: "The widest departure, I would say, would be in England..." and "as a matter of fact, [the procedure] is very similar to the procedure in the German Patent Office..."; cf., however, BAILLIE, supra note 6, at 183, who speaks of "German" aspects, which "may be nearer British in some areas."

17) Cf. VAN EMPEL, supra note 16, who calls this possibility a "poor man's opposition"; on this point, also KÜCHLER, "Die Europäischen Patentübereinkommen aus schweizerischer Sicht" 76 (1974).

18) See VAN BENTHEM, 1972 Ind. Prop. 322, at 326.

19) See also COLLIN, "Internationale Patentsysteme und Praxis" 17 (1977).

20) In Germany, approximately 100 nullity suits per year in comparison to 4,000 oppositions; see on this point also VAN EMPEL, supra note 16, at 216.

21) This is also true for the filing of an appeal; for further details see STEIN, GRUR Int. 1974 67 et seq.; VAN EMPEL, supra note 16, at 216, who regards this as resembling a nullity procedure; similarly COLLIN, supra note 19.

22) This applies also to the appeals proceeding, where a complete legal and factual examination takes place. On the somewhat misleading wording of Art. 107 MPC cf. VANEMPEL, supra note 16, at 233, n. 246.

23) See BLANCO WHITE, supra note 16, at 236 et seq., 141 Secs. 4-201; see also KALIKOW, supra note 6, at 729: "Examination and prosecution to allowance will be substantially in accord with the present Germanic practice."

24) BLANCO WHITE, supra note 16, at 238 with further references; see VAN EMPEL, supra note 16, at 233 et seq.

25) This follows from the principle of ex officio examination of the EPO ("examination of its own motion" Art. 114), see supra, at p. 7, at n. 22; the requirement of being "adversely affected" is therefore only examined as a prerequisite of admissibility without limiting the scope of the examination; accord, VAN EMPEL, supra note 16, at 236.

26) See also VAN EMPEL, supra note 16, at 233 et seq. who proposes a subsidiary request for the complete revocation of the patent; more appropriate, however, would be a main request for complete



revocation and a subsidiary request for partial revocation.

27) As long as this has not intentionally been withheld in order to delay the proceeding, Art. 114 (2) MPC; cf. as to the discretion in case of evidence not submitted within the prescribed time under German law, German Federal Supreme Court of June 2, 1977, Case No. XZB 11/76 - Gleichstromfern-speisung.

28) See VAN EMPEL, supra note 16, at 233.

29) See VAN EMPEL, id., at 224.

30) The 1962 Preliminary Draft still contained in Art. 113 an appeal on the law to the "European Patent Court," whose role under the Luxembourg Patent Convention will be fulfilled by the European Court of Justice, see p. 10. infra, for the history see MAST, "The Washington Diplomatic Conference on the Patent Cooperation Treaty," 1 IIC 307 (1970); VAN EMPEL, supra note 16, at 238 et seq.

31) The project of a European Patent Court was abandoned for financial and political reasons; for the history cf. BOSSUNG, supra note 15, at 147 et seq.; VAN EMPEL, supra note 16, at 240; on the necessity of a legal revision concerning the examination for non-obviousness by the French Supreme Court, see MATHÉLY, "Le droit français des brevets d'invention" (Paris, 1974).

32) See VAN EMPEL, supra note 16, at 240 with further references.

33) See the report by BOSSUNG, GRUR Int. 1976 196 et seq.; STEIN, GRUR Int. 1976 205 ; SINGER, GRUR Int. 1976 217 .

34) On the jurisdiction of the European Court of Justice in patent matters see most recently BRÄNDEL, GRUR 1977 294 who points out (at 295) that for the first time in its history this Court has become competent as a real court of last resort, for more details see SINGER, supra note 33.

35) One should keep in mind, however, that a decision of the European Court of Justice can only be expected after the Luxembourg Patent Convention enters into force so that the "guideline function" of the Court can commence only at a relatively late stage.

36) See BOSSUNG, GRUR Int. 1976 224 et seq.

37) See STAUDER, GRUR Int. 1976 510 , at 518 et seq.: "Territorially restricted invalidation."

38) See BRÄNDEL, supra note 34.

39) BRÄNDEL, supra note 34, at 296 et seq.

40) On the controversy in France whether the French standard of inventiveness was adjusted to the German standard by the introduction of the non-obviousness requirement in the Law of 1968, see MOUSSERON on the one hand and HARLE on the other on the Conference at Strasbourg 1971 in "Les innovations de la loi du 2 janvier 1968 en matière de brevets d'invention" (CEIPI, 1972) (cited in the following Strasbourg 1971), at 86 et seq. This discussion is, in principle, irrelevant for the European interpretation. It may, however, have an impact on the practical work in the EPO, where German and French examiners might apply different standards; see also MATHÉLY, supra note 31, at 89; id., Strasbourg 1971, at 63; PEDRAZZINI, supra note 5, regards the substitution of the word "Erfindungshöhe" by the expression "erfindersche Tätigkeit" in the revision law of the Swiss Patent Act as a lowering of the standard of examination.

41) Cf. PEDRAZZINI, supra note 13, at 20, who points out that Switzerland presently applies an even higher standard of inventiveness than Germany; also the Swiss Supreme Court assumes that in spite of identical statutory requirements of patentability, the Swiss standard of non-obviousness is more severe than the German standard, see Swiss Supreme Court, 1963 Schw. Mitt. 41; but see for the future Swiss practice, PEDRAZZINI, supra note 5.

42) Cf. now Sec. 2 a of the German Patent Act as well as the official notes in 1976 Bl. f. PMZ 332, left column, from which it can be deduced that no change in the law is intended by the substitution of "erfindersche Tätigkeit" for "Erfindungshöhe."

43) In the following, I rely partly on proposals laid down in a German-language study (PAGENBERG, "Die Bedeutung der Erfindungshöhe im amerikanischen und deutschen Patentrecht" (The Interpretation of the Concept of Non-obviousness in U.S. and German Patent Law), No. 36 of the series "Schriftenreihe des Max-Planck-Instituts zum gewerblichen Rechtsschutz" (Carl Heymanns Verlag, Cologne, 1975)). Those proposals had to be updated and adjusted to the European requirements due to the ensuing discussion of this problem in the prospective Convention states and the extreme uncertainty prevailing among practitioners and scholars alike concerning the future examination procedure of the European Patent Office and especially the interpretation of the concept of non-obviousness. The discussion has also continued in the U.S. since the above-mentioned study was published, partly because of the disappointing opinion of the Supreme Court in *Sakraida v. Ag Pro Inc.*, 189 USPQ 449 (Sup. Ct. 1976). Among the U.S. articles on the concept of non-obviousness, I wish to mention only the following:



SHAPIRO, "Toward a Realistic Standard of Patentability," 17 IDEA 3 (1975); LEONARD, "The Man Skilled in the Art-Or - Goodness Gracious A Ghost!" 56 JPOS 551 (1974); CHISUM, "Afterthoughts and Undisclosed Advantages as Evidence of Patentability: From Salt Dredges to Polysterenes," 57 JPOS 437 (1975). R. HALLMAN, "Creativity, Patentability and Non-obviousness" 57 JPOS 320 (1975); WEPNER "Appellate Review of Patentability," 56 JPOS 216, 288 (1974); LORENZO, "Advance in the Art: The Essential Criterion of Patentability," 56 JPOS 195 (1974). In September 1977 a three-day conference was held in the U.S. where some 20 lectures, given by America's most prominent patent experts, were dedicated to the concept of non-obviousness: "The Celebration Lectures Non-Obviousness: The Standard of Patentability in the United States," for the "Silver Anniversary" of 35 USC 103. Cf. also the review in 347 PTCJ, at A-6 et seq.

44) See DE BOISSE, Strasbourg 1971, supra note 40, at 91, who argues that a "level" is subject to arbitrary interpretation; id., 1971 Ing.-Cons. 63, 80; the misconception abroad of the German concept of "inventive level" seems to be great indeed; SAVIDGE, 1976 CIPA 112 et seq. speaks in this context of "excesses of Teutonic Scholasticism" and reaches the surprising conclusion that a copyright solution for patents in Europe would be preferable to the Munich Patent Convention.

45) Accord already MATHÉLY, Strasbourg 1971, supra note 40, at 63, also PAGENBERG, 5 IIC 157, 160 et seq.; BOSSUNG, 1974 Mitt. 147.

46) On the harmonization of the Swiss Patent Law with the Munich Patent Convention, see PEDRAZZINI, supra note 5, who points out that the concept of "Erfindungshöhe," will be replaced in the future by "Nichtnaheliegen"; see also KÜCHLER, supra note 17, at 52.

47) Tribunal de grande instance of December 17, 1973, 1974 JCP II 17,845, German translation, GRUR Int. 1975 176; the same Court, March 21, 1974, 1974 PIBD 178, German translation, GRUR Int. 1974 371; for further references, see PHELIP, "Droit et Pratique des Brevets d'Invention," at C 18 (Paris, 1976).

48) See PAGENBERG, "The Concept of the 'Inventive Step' in the European Patent Convention" in 5 IIC 157 (1974). On the interpretation of the French and English text see also PHELIP, supra note 47, at C 19, as well as PANEL, Strasbourg 1974, supra note 7, at 68. For equating "Erfindungshöhe" with "erfinderische Tätigkeit" (inventive step) see also CASA- LONGA in an unpublished manuscript "L'Activité Inventive de la Convention sur la Délivrance du Brevet Européen"; accord BOSSUNG, supra note 45, who, for historical reasons, however, regards the English concept of inventive step as a yardstick; KÜCHLER, supra note 17, at 52 equates the Swiss concept of *Erfindungshöhe* with the European requirement of *erfindersche Tätigkeit* (inventive step) in the Munich Patent Convention.

49) Cf. e.g. DELAIRE, 1977 JCP I 2852, who argues that the standard of examination will be raised by the introduction of the concept of "activité inventive," "but disregards the efforts of the inventor and uses the inventive result as the basis for measuring non-obviousness; similarly as to the last point, CHAVANNE, Strasbourg 1971, supra note 40, at 69, 70, 76, who, however, regards the concept "niveau inventive" (inventive level) as a more severe requirement than "activité inventive" (inventive activity); accord MOUSSERON, Strasbourg 1971, supra note 40, at 85; PLAISANT, GRUR Int. 1968 175, at 178. From the British viewpoint also, the patentability standard seems to have been raised under the MPC, see SAVIDGE, supra note 7, at 108; accord, WHITE, *ibid.*, at 120, who also criticizes the present examination of the British Patent Office.

50) DELAIRE, *ibid.*, who expresses the hope that the Patent Office and the courts will not try to interpret the word "activité" in the French and German text of the MPC; accord, LECCA, Strasbourg 1974, supra note 7, at 83, who also prefers the concept of non-obviousness; a different view is taken by SAVIDGE, supra note 7, at 111, who regards the examination for non-obviousness as an "artificial and irrelevant test of academic merit"; the same opinion is expressed by BOSSUNG, supra note 45.

51) Accord DEMOUSSEAU & DE BOISSE, 1971 Ing.-Cons. 80; PHELIP, supra note 47, at C 21; BOSSUNG, supra note 45, at 148; cf., however, PAGENBERG, supra note 43, at 174, for references to the modern methodological doctrine.

52) Some authors incorrectly call this subjective, cf. SAVIDGE, supra note 7, at 111 on the interpretation of the European system, although he regards the British system to be based on facts; similarly DE BOTSE, Strasbourg 1971, supra note 40, at 39, 43; for the French law MATHÉLY, Strasbourg 1971, supra note 40, at 89; id., supra note 31, at 156; cf. also PAGENBERG, supra note 43, at 175; id., 6 IIC 463, 468 (1975).

53) DE BOISSE, Strasbourg 1971, supra note 40, at 91.

54) DE BOISSE, supra note 40, at 160.

55) One could, however, draw certain conclusions from the different wording in the German, English and French texts of the "Guidelines," where, in part C.III.6.2, the German text speaks of "*offensichtliche*



Verwendungsmöglichkeit" the French text of "utilisation évident" and the English text of "obvious users."

56) See BOSSUNG, supra note 45.

57) For the French law cf. MOUSSERON, Strasbourg 1974, supra note 7, at 56; for the Swiss law, BLUM & PEDRAZZINI, "Das schweizerische Patentrecht" 111 et seq. (1975), ("the skilled person" is a person of average skill in the art).

58) E.g., German Federal Supreme Court of June 3, 1976, Case No. XZR 4/73, and December 2, 1976, XZR 55/74; in the U. S. A. also the "problem solver" is referred to as "skilled person" instead of the "user," see Systematic Tool and Machine Company v. Walter Kittel and Co., Inc. of March 25, 1977 (3d Cir. 1977) PTCJ No. 326, at A-4.

59) Rightly so MATHÉLY, supra note 31, at 157; also BOSSUNG, supra note 3, at 89.

60) Accord MATHÉLY, supra note 31, at 157; "...qui possède les connaissances normales de la technique en cause."

61) This is the argument of R. J. HALLMAN, supra note 43, at 322 (1975); also HUCH, supra note 7, who regards the criteria developed for establishing non-obviousness as fiction. Actually, only "real knowledge" can be taken into consideration for the evaluation of the inventive step, not an artificial combination of dead knowledge; see c infra p. 17.

62) In German law, where the objective circumstances are considered, such combined knowledge is an exception, see German Federal Supreme Court of May 6, 1960, GRUR 1960 427 et seq. - Fensterbeschläge. Also see MATHÉLY, supra note 31, at 158; in favor of a case by case analysis of knowledge according to the technological branch in question cf. MoUSSERON, Strasbourg 1974, supra note 7, at 56; see also the "Guidelines" C.IV.9.6.

63) Accord, PEDRAZZINI, supra note 13, at 19. The skilled person should never be used as a convenient substitute for substantive reasoning by examiners and judges: The person skilled in the art is neither expert, nor witness, nor even examiner or judge, nor is he fictitious in the sense that his knowledge and capabilities could be "invented" by examiners or judges; cf. the critical remarks concerning U. S. practice by LEONARD, supra note 43, at 599 (1974).

64) For further details on this point, see PAGENBERG, supra note 43, at 150 et seq.; see, however, the different wording in the German text, Part C, Chapter 4, IV.9.6: "Wissensstand auf dem betreffenden Gebiet" (Knowledge in the Pertinent Art) and in the English text,

"Common General Knowledge in the Art," a difference which might lead to confusion; see MATHÉLY, supra note 31, at 157: "connaissances acquises dans le domaine considéré" (acquired knowledge in the pertinent field); also CHAVANNE, Strasbourg 1971, supra note 40, at 75; MOUSSERON, Strasbourg 1974, supra note 7 at 56; PANEL, Strasbourg 1974, supra note 7, at 69; CASALONGA, supra note 48, at 7; for the Swiss law also RITSCHER, GRUR Int. 1963 241, at 245, who only wants to consider the real knowledge of the skilled person limited to "partial information from accessible fields"; cf. also decision of the Swiss Federal Supreme Court, 87 BGE II 269 (1961); "real and effective knowledge of the skilled person"; cf. however, 1 TROLLER, "Immaterialgüterrecht" 196, at 214 (1968), who in principle favors the reference to real knowledge and capabilities of the skilled person in a pertinent field of technology, arguing, however, that under the current law for the examination of non-obviousness a comparison of the invention with the complete prior art must be carried out. Id., in agreement with the proposals favored here in 1976 Schw. Mitt. 249; unclear WESTON, Strasbourg 1974, supra note 7, at 36 et seq., who opposes an ex post search of the prior art which does not take into account the real knowledge at the time of application, but favors on the other hand taking into consideration references from all sources; a different view also voiced by BOSSUNG, supra note 3, at 88; id., supra note 7, at 47, who, for the mosaic combination of the prior art, wants to use "the state of the art as a whole"; in the same sense DELAIRE, supra note 49, however without giving any reasons and in spite of acknowledging that the skilled person would then become an "être imaginaire"; also PHELIP, supra note 47, at C21, who incorrectly relies on U.S. decisions; cf. for the U.S. law, however, PAGENBERG, supra note 43, at 99 et seq., 150 et seq.

65) For the same reason it should be considered whether the so-called "dead" or "paper" prior art should also be disregarded, cf. from the Swiss point of view TROLLER, supra note 64, at 220; accord, PEDRAZZINI, supra note 13, at 20; for Dutch law, see decision of the Octrooiraad of May 24, 1973, 1973 B. I. E. 134; for the U. S. A., see Columbia Broadcasting System v. Zenith Radio Corp., 185 USPQ 662 (N.D.Ill. 1975); opposed expressly BOSSUNG, 1974 Mitt. 141.

For a case decided by the Swiss Supreme Court in GRUR Int. 1971 87, see PEDRAZZINI, supra note 13, at 12, KOLLE, GRUR Int. 1971 63 and PAGENBERG, supra note 43, at 150 et seq.



66) Partly in this context the use of objective criteria is suggested in order to obtain a more "realistic" result, a proposal a methodologist, at least, would look upon as a detour. In the U.S.A., too, the CCPA limits the references to be considered in the evaluation of nonobviousness to those which belong to the knowledge of the person skilled in the pertinent art. For many other decisions see *In re Antle*, 170 USPQ 285, 287 (CCPA, 1971), and further references cited by PAGENBERG, *supra* note 43, at 104, notes 574-576. A more realistic standard without the presumption of inventor omniscience is also advocated by SHAPIRO, *supra* note 43, at 6 *et seq.*, a contrary view being taken in several decisions cited by SHAPIRO; for "new use" inventions in Dutch law see decisions of *Octrooiraad* of February 13, 1963, 1963 B.I.E. 106 as well as of August 2, 1961, 1961 B.I.E. 212.

67) See "Guidelines" B.III.3.9 and B.IV.2.8, from which CASALONGA draws the conclusion that perhaps also knowledge not available in the form of documents could be used by the examiner as a reference. This, of course, is unacceptable.

68) See DELAIRE, *supra* note 49; opposed CHAVANNE, *Strasbourg* 1974, *supra* note 7 at 77; see also CASALONGA, *supra* note 48, at 6.

69) Accord MATHÉLY, *supra* note 31, at 160: The inventive step can lie either in finding the problem or in its solution; CHAVANNE, *supra* note 68, at 77; DEMOUSSEAUX & DE BOISSE, *supra* note 51, at 77; WEINSTEIN, "Le droit des brevets d'invention" 25 (Paris, 1968); for the U. S. A. see *In re Nomiya*, 184 USPQ 607 (CCPA, 1975).

70) Accord MATHÉLY, *supra* note 31, at 160; BLUM & PEDRAZZINI, *supra* note 57, at 120.

71) See II. 2. b. (c) (2), *infra*; accord CHAVANNE & BURST, "Droit de propriété intellectuelle" 23, No. 32.

72) Cf., however, the erroneous reference to the date of invention by *Tribunal de grande instance de Paris* of December 17, 1973, 6 IIC 456 (1975) with critical comment by PAGENBERG, 6 IIC 463 (1975), in spite of the fact that the wording of the French Act is practically identical with that of the MPC.