

National Group: United Kingdom

Title: The person skilled in the art in the context of the inventive step requirement in patent law

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Introduction

UK law concerning the person skilled in the art is based on judicial interpretation of section 3 of the Patents Act 1977, which brings Art 56 EPC into UK law. Case law holds that a patent is addressed to a hypothetical skilled reader. This response deals with UK case law and does not consider in detail EPC case law.

In *Rockwater Ltd v Technip France SA & Anor* [2004] EWCA Civ 381, Jacob LJ in the UK Court of Appeal described the skilled reader:

"6. The "man skilled in the art" is invoked at many critical points of patent law. The claims of a patent must be understood as if read by that notional man – in the hackneyed but convenient phrase the "court must don the mantle of the skilled man." Likewise many questions of validity (obviousness, and sufficiency for instance) depend upon trying to view matters as he would see them. He indeed has statutory recognition – Arts. 56, 83 and 100 of the EPC expressly refer to "the person skilled in the art."

7. It is settled that this man, if real, would be very boring – a nerd. Lord Reid put it this way in *Technograph v Mills & Rockley* [1972] RPC 346 at p.355

"... the hypothetical addressee is a skilled technician who is well acquainted with workshop technique and who has carefully read the relevant literature. He is supposed to have an unlimited capacity to assimilate the contents of, it may be, scores of specifications but to be incapable of scintilla of invention. When dealing with obviousness, unlike novelty, it is permissible to make a "mosaic" out of the relevant documents, but it must be a mosaic which can be put together by an unimaginative man with no inventive capacity."

8. The no-mosaic rule makes him also very forgetful. He reads all the prior art, but unless it forms part of his background technical knowledge, having read (or learnt about) one piece of prior art, he forgets it before reading the next unless it can form an uninventive mosaic or there is a sufficient cross-reference that it is justified to read the documents as one.

9. He does, on the other hand, have a very good background technical knowledge – the so-called common general knowledge. Our courts have long set a standard for this which is set

out in the oft-quoted passage from *General Tire v Firestone Tire & Rubber* [1972] RPC 457 at 482 which in turn approves what was said by Luxmoore J in *British Acoustic Films* 53 RPC 221 at 250. For brevity I do not quote this in full – Luxmoore J's happy phrase "common stock of knowledge" conveys the flavour of what this notional man knows. Other countries within the European Patent Convention apply, so far as I understand matters, essentially the same standard.

10. The man can, in appropriate cases, be a team – an assembly of nerds of different basic skills, all unimaginative. But the skilled man is not a complete android, for it is also settled that he will share the common prejudices or conservatism which prevail in the art concerned.

11. None of the above is controversial. However, sometimes the requirement that the skilled man be uninventive is used by counsel for a patentee in an attempt to downgrade or dismiss the evidence of an expert called to say that a patent is obvious – "my witness is more nerdlike than his" is the general theme. I do not find this a helpful approach. It is frequently invoked and Mr Waugh QC invoked it in this case in an effort to downgrade Rockwater's expert evidence on obviousness given by Professor Witz. Mr Waugh said his witness, Mr Nash was more appropriately qualified than Professor Witz, that the latter, because he had patents in his name "was of an inventive turn of mind."

12. I must explain why I think the attempt to approximate real people to the notional man is not helpful. It is to do with the function of expert witnesses in patent actions. Their primary function is to educate the court in the technology – they come as teachers, as makers of the mantle for the court to don. For that purpose it does not matter whether they do or do not approximate to the skilled man. What matters is how good they are at explaining things.

13. But it also is permissible for an expert witness to opine on an "ultimate question" which is not one of law. I so held in *Routestone v Minorities Finance* [1997] BCC 180 and see s.3 of the Civil Evidence Act 1972. As regards obviousness of a patent Sir Donald Nicholls V-C giving the judgment of the Court of Appeal in *Mölnlycke v Proctor & Gamble* [1994] RPC 49 at p. 113 was explicit on the point:

"In applying the statutory criterion [i.e. as to whether an alleged inventive step was obvious] and making these findings [i.e. as to obviousness] the court will almost invariably require the assistance of expert evidence. The primary evidence will be that of properly qualified expert witnesses who will say whether or not in their opinions the relevant step would have been obvious to a skilled man having regard to the state of the art."

14. But just because the opinion is admissible:

"it by no means follows that the court must follow it. On its own (unless uncontested) it would be "a mere bit of empty rhetoric" Wigmore, *Evidence* (Chadborn rev) para. 1920. What really matters in most cases is the reasons given for the opinion. As a practical matter a well-constructed expert's report containing opinion evidence sets out the opinion and the reasons for it. If the reasons stand up the opinion does, if not, not. A rule of evidence which excludes this opinion evidence serves no practical purpose. What happens if the evidence is regarded as inadmissible is that experts' reports simply try to creep up to the opinion without openly giving it. They insinuate rather than explicate" (*Minorities* at p. 188).

15. Because the expert's conclusion (e.g. obvious or not), as such, although admissible, is of little value it does not really matter what the actual attributes of the real expert witness are. What matters are the reasons for his or her opinion. And those reasons do not depend on how closely the expert approximates to the skilled man."

Question 1

The study proposed by AIPPI starts with the consideration of the person as one of the elements of the definition of the person skilled in the art. The Groups are therefore requested to indicate if the person skilled in the art is one, or more, person. If a skilled person is a team of people, then are the team members all the same or may they be different in their various attributes, specifically if such a team may comprise persons from various disciplines or having different levels of qualifications?

The skilled addressee may be a team comprising members with different attributes and qualifications: "In some cases the subject-matter may be such that the addressee would, in effect be a composite entity ... ie a team including members having different technical skills and knowledge" (*Genentech Inc's (Human Growth Hormone) Patent* [1989] RPC 613). The team may also have a flexible approach: "... it makes no difference whether they are conceived to be working together as a single unit or as individual members" (*Genentech*).

Question 2

Is the skilled person a real person (or team of persons) or a hypothetical person?

- 2.1 The skilled person (or team) is hypothetical: "Patent specifications are intended to be read by persons skilled in the relevant art, but their construction is for the court. Thus the court must adopt the mantle of notional skilled addressee, and determine ... what the notional skilled addressee would understand to be the ambit of the claim." (*Lubrizol v Esso* [1998] RPC 727 at 738).
- 2.2 It is important that the skilled reader is notional. "This is not a real person. He is a legal creation. He is supposed to offer an objective test of whether a particular development can be protected by a patent. He is deemed to have looked at and read publicly available documents and to know of public uses in the prior art. He understands all languages and dialects. He never misses the obvious nor stumbles on the inventive. He has no private idiosyncratic preferences or dislikes. He never thinks laterally. He differs from all real people in one or more of these characteristics." (*Pfizer's Patent* [2001] FSR 201, Laddie J, approved by Jacob LJ in *Nichia Corporation v Argos Limited* [2007] EWCA Civ 741).

Question 3

The person skilled in the art has to be analyzed in the frame of her/his personal capacities and attributes. At first, is it necessary to know whether and if so to which extent this person has reasoning and/or creative capacities or if he/she has merely the capacity to perform or execute the orders or instructions from other people. Another point that can be discussed is whether the personal attributes of the person skilled in the art are the same also for other circumstances in which the person skilled in the art may have a role, such as construction of the patent or for the consideration of the sufficiency of the disclosure in the specification, even if this last point goes beyond the scope of the present study. Finally, the question that can be discussed is the issue of knowing if the personal attributes of the person skilled in the art are the same for different IP rights

covering technical creations, like patents or utility models, species, etc., if they exist in the national law.

- 3.1 The skilled person has reasoning capacity but has no creative capabilities. He has an unlimited capacity to perform or execute orders in his field. "The hypothetical addressee is a skilled technician who is well acquainted with workshop technique and who has carefully read the relevant literature. He is supposed to have an unlimited capacity to assimilate the contents of, it may be, scores of specifications but to be incapable of scintilla of invention. When dealing with obviousness, unlike novelty, it is permissible to make a "mosaic" out of the relevant documents, but it must be a mosaic which can be put together by an unimaginative man with no inventive capacity." (Lord Reid in *Technograph v Mills & Rockley* [1972] RPC 346 at p.355).
- 3.2 The skilled reader is also assumed to know 'the basic principles of patentability', (*Kirin-Amgen Inc v Hoechst Marion Roussel Ltd* [2004] UKHL 46, [2005] RPC 9, para 78), including the drafting conventions by which a patent and its claims are framed; that includes knowing what a divisional application is (*Virgin Atlantic Airways v Premium Aircraft Interiors UK* [2009] EWCA 1062). The UK does not have utility models. The knowledge and views of the skilled reader are presented to the court by expert witnesses. They will almost always have a view as to what a claim means, but that is not something in which the court is interested.
- 3.3 In *Genentech*, Mustill LJ said "it cannot be assumed that the arts in which the hypothetical persons are skilled will be the same whether they are the addressee who start with the patent and try to make it work, or persons who start with the prior art and try to get to the patent". However in *Schlumberger Holdings Limited v Electromagnetic Geoservices AS* [2009] EWHC 58, Mann LJ disagreed and stated that "the statute seems to point strongly to the same person being the skilled addressee throughout, and for all purposes".
- 3.4 The level of skill of the skilled person should be the same for the purposes of obviousness and sufficiency. There is "no mandate for applying a different meaning to the words "skilled in the art" in section 72(1)(c) from that in section 3" Purchase LJ in *Genentech* 1989 RPC 147.

Question 4

Another important aspect of the question is to know what are the personal skills of the "person skilled in the art"? At least two important issues deserve to be analyzed:

- What is the level of the qualification or skills of the person?
- And what are the nature and the scope of his/her knowledge?

The second issue encompasses more precisely the question of the capacity to understand and to analyze the documents which are accessible to the person skilled in the art, this capacity being called "the general knowledge" and concerns the proof of the content of the "general knowledge":

- a) what is the scope of such knowledge in general terms?
- b) is such knowledge limited to the general technical training of such person?
- c) to what extent is information in documents – articles or prior patents – considered to be included as part of such working knowledge?

d) can such knowledge include information which the person may not have memorised, but can readily look up?

- 4.1 The identity and skills of the skilled reader will depend on the subject matter of the invention. He will have “a practical interest in the subject matter of the invention” (*Catnic Components Ltd v Hill & Smith Ltd* [1982] RPC 183 at 242), and it is settled that this man, if real, would be very boring – a nerd. He will have a very good background technical knowledge – the so-called common general knowledge.
- 4.2 As noted above, the skilled man or, if appropriate, team is unimaginative but not a complete automaton, for it is also settled that he will share the common prejudices or conservatism which prevail in the art concerned. In *Dyson v Hoover* [2001] RPC 26, Fysh HHJ held that “negative aspects of knowledge must in approximation to reality, play their part”.
- 4.3 Proving the scope of the skilled man’s knowledge may be important. In *Dyson Appliances v Hoover* [2002] RPC 22, Aldous LJ held that “common general knowledge has to be distinguished from what is known. To be common general knowledge the knowledge has to be that which is known by the ordinary addressee of the patent.”
- 4.4 UK courts have long used a standard for common general knowledge set out in the frequently quoted passage from *General Tire v Firestone Tire & Rubber* [1972] RPC 457 at 482 which in turn approves Luxmoore J in *British Acoustic Films* 53 RPC 221 at 250: “In my judgment it is not sufficient to prove common general knowledge that a particular disclosure is made in an article, or series of articles, in a scientific journal, no matter how wide the circulation of that journal may be, in the absence of any evidence that the disclosure is accepted generally by those who are engaged in the art to which the disclosure relates. A piece of particular knowledge as disclosed in a scientific paper does not become common general knowledge merely because it is widely read, and still less because it is widely circulated. Such a piece of knowledge only becomes general knowledge when it is generally known and accepted without question by the bulk of those who are engaged in the particular art; in other words, when it becomes part of their common stock of knowledge relating to the art.” (We accept this passage as correctly stating, in general, the law on this point, though reserving for further consideration whether the words “accepted without question” should be substituted by the words “generally regarded as a good basis for further action”.)
- 4.5 In *Raychem Corp.’s Patents* [1999] RPC 497, Court of Appeal, Aldous L.J. agreed with Laddie J at first instance: “The common general knowledge is the technical background to the notional man in the art against which the prior art must be considered. This is not limited to material he has memorised and has at the front of his mind. It includes all that material in the field he is working in which he knows exists, which he would refer to as a matter of course if he cannot remember it and which he understands is generally regarded as sufficiently reliable to use as a foundation for further work or to help understand the pleaded prior art. This does not mean that everything on the shelf which is capable of being referred to without difficulty is common general knowledge nor does it mean that every word in a common text book is either. In the case of standard textbooks, it is likely that all or most of the main text will be common general knowledge. In many cases common general knowledge will include or be reflected in readily available trade literature

which a man in the art would be expected to have at his elbow and regard as basic reliable information.”

Question 5

The question of the person skilled in the art raises also the problem of the moment of the evaluation of those skills: should they be all evaluated at the moment of the appreciation of the validity of the patent, i.e. at the moment of the priority date, or could they be evaluated also at the date when the patent is assessed by the Judge, for example in the infringement proceedings where the validity can be debated jointly with the infringement claim? This may conduct to the differences of appreciation in case the notion of the equivalence is used in relation to the prior art.

It is necessary to determine what the state of the notional skilled person’s knowledge was at the priority date of the patent. While the principles set out by Staughton LJ in *Glaverbel SA v British Coal* [1995] RPC 255 at 268–270 suggest that the date at which a construction should be applied may be that of publication of the specification, references in the case to the ‘matrix of fact’ suggests that the correct date will be the priority date. The priority date is also the date given in *Sara Lee Household & Body Care v Johnson Wax* [2001] EWCA Civ 1609. In *Biogen v Medeva* [1997] RPC 1, the House of Lords said that the correct date for assessing sufficiency is the filing date, but it is submitted that the priority date may have been intended. It is hard to see why there should be different dates for assessing sufficiency and construction. This may lead to complex practical issues in patents with multiple priorities.

Question 6

The next issue related to the definition to the person skilled in the art is the technical domain or “the art” in which his or her skills are performed. The first sub-question is to know if those skills are concentrated in one or several technical fields. And the second one is related to the way the frontiers between different technical fields can be established: how this determination is assessed by the Judges or Patent Offices?

- 6.1** The addressee of the specification is the person skilled in the art, who approaches the document with the common general knowledge. The addressee is someone “likely to have a practical interest in the subject matter of his invention” (Lord Diplock in *Catnic*). This practical interest may involve a collection of skills and knowledge that would not normally be found in a single individual, and therefore may require a team consisting of, for example, a physician, a pharmacologist and a formulation specialist.
- 6.2** The relevant art and the field in which the addressee operates should be apparent from the specification itself. “Although it has to be remembered that a specification may fail to provide sufficient details for the addressee to understand and apply the invention, and so be insufficient and invalid, it is often possible to deduce the attributes which the skilled man must possess from the assumptions which the specification clearly makes about his abilities.” (Pumfrey J in *Horne Engineering v Reliance Water Controls* [2000] FSR 90 at para 11). Where the invention is widely claimed and spans several fields, the court may consider a worker from any of the fields as being the skilled person (*Inhale Therapeutic Systems v Quadrant Healthcare* [2002] RPC 21 at paras 35-42). Further, if the art specifically flags a technology in which the skilled man/team would regard themselves as inadequately

skilled, they would consider getting help from someone else (*Pfizer Ltd's patent* 2001 FSR 16 at para 67).

- 6.3** The level of skill and training assumed of such a person may differ widely depending on the subject matter. There are technologies where no great knowledge is to be attributed to the skilled man, and others (e.g. genetic engineering) where to attribute an unrealistically low level of attainment to the skilled man would prejudice industrial development (*Glaxo Group's patent* [2004] RPC 43 at para 24).

Question 7

The question is also to know what is the nature of his/her competence in the technical field and particularly if this competence is theoretical or practical?

As set out above, the identity and skills of the skilled reader will depend on the subject matter of the invention. While each case will depend upon the description in the patent, the notional reader should always be somebody directly involved in producing the product or carrying out the process of production described in the patent (*Richardson - Vicks Inc.'s Patent* [1997] RPC 888, 895 Aldous LJ).

Question 8

The Groups are requested to indicate how in practice the assessment of the skills of the person skilled in the art is operated. What is the role of the opinion of the experts on this point?

- 8.1** To determine the skills of the person skilled in the art, the court should read the patent to decide on the composition of the team, then consider it for remaining questions of construction (*Cranway v Playtech* [2009] EWHC 1588 (Pat)).
- 8.2** In the UK, each side has one or more experts. It is possible to have a court-appointed joint expert, but this is uncommon. Each expert writes a report, which the parties exchange. A second report may then be written by each expert, in "reply". The experts give their evidence to the court and are cross-examined. An expert witness's primary function is to educate the court in the technology. For that purpose it does not matter whether they do or do not approximate to the skilled man. It is permissible for an expert witness to opine on the composition of the skilled team. "In applying the statutory criterion [i.e. as to whether an alleged inventive step was obvious] and making these findings [i.e. as to obviousness] the court will almost invariably require the assistance of expert evidence. The primary evidence will be that of properly qualified expert witnesses who will say whether or not in their opinions the relevant step would have been obvious to a skilled man having regard to the state of the art." (*Mölnlycke v Proctor & Gamble* [1994] RPC 49 at p.113).
- 8.3** But just because the opinion is admissible it by no means follows that the court must follow it. Because the expert's conclusion (e.g. obvious or not), as such, although admissible, is of little value it does not really matter what the actual attributes of the real expert witness are. What matters are the reasons for his or her opinion, and those reasons do not depend on how closely the expert approximates to the skilled man.

Harmonisation

The UK group proposes that the skilled reader should: (a) be a notional, as opposed to a real, person and where appropriate be a team with relevant skills; (b) know the common general knowledge, which should be all relevant subject matter known to workers in the field; and (c) not be assumed to mosaic the prior art without a reason to do so.

Further, where a witness gives evidence of what the skilled reader knew or thought, that evidence should be to teach the court and the witness should not “step into the shoes” of the skilled addressee.

The UK group proposes that a new internationally agreed standard is established, with the following wording:

“For all purposes under this Standard, the person skilled in the art (hereafter “the skilled addressee”) shall be defined as follows.

The skilled addressee:

- (a) is a notional, as opposed to a real, person who is deemed to have a practical interest in the subject matter of the patent in question;
- (b) may, where appropriate, consist of a team with relevant skills;
- (c) has an unlimited capacity to assimilate the contents of the state of the art but is incapable of invention;
- (d) is deemed to know all relevant information which was [commonly and] generally known or available to real workers in the relevant field before the priority date and which was taken by them as a good basis for further action; and
- (e) should not be assumed to combine different items (in particular, different documents) which were made available to the public before the priority date without a reason to do so.”

Summary

In the UK, a patent is addressed to a hypothetical skilled reader. This reader is unimaginative, with no inventive capacity and very forgetful. The skilled reader has a very good background technical knowledge and will also share the common prejudices or conservatism in the field. If appropriate, the skilled reader may be made up of a team, comprising members with different basic skills. The court usually learns about the skills of the addressees from expert witnesses. Although the primary function of expert witnesses in patent actions is to educate the court in the technology, they may also opine on whether the invention would have been obvious to the skilled reader.

Résumé

Au Royaume Uni, un brevet s'adresse à un homme du métier imaginaire. Cet homme du métier est un homme ordinaire, dénué de toute capacité inventive et très distrait. L'homme du métier possède de très bonnes connaissances techniques et partage également les préjugés communs ou les traditions propres au domaine technique. Si cela apparaît nécessaire, l'homme du métier peut également être membre d'une équipe composée de membres possédant des connaissances de base différentes. Le tribunal détermine en général les connaissances des destinataire du brevet au regard de témoignages d'experts. Bien que la fonction essentielle de ces experts consiste à éclairer le tribunal sur la technologie en question lors de contentieux en matière de

brevets, ils peuvent également émettre un avis sur la question de savoir si l'invention aurait été évidente pour l'homme du métier.

Zusammenfassung

Im Vereinigten Königreich richtet sich ein Patent an einen hypothetischen fachkundigen Leser. Dieser Leser ist einfallslos, hat keine erfinderischen Fähigkeiten und ist sehr vergesslich. Der fachkundige Leser hat ein sehr gutes technisches Hintergrundwissen und teilt auch die allgemeinen Vorurteile und Vorsichtsmaßnahmen in dem Bereich der Technik. Falls erforderlich, kann der fachkundige Leser auch aus einer Gruppe von Mitgliedern mit unterschiedlichen Grundfähigkeiten bestehen. Dem Gericht wird der Sachverstand der Adressaten im Allgemeinen durch Sachverständigenbeweis vermittelt. Obwohl die vorrangige Funktion des Sachverständigen im Patentprozess ist, dem Gericht die Technologie zu vermitteln, können sie auch dazu Stellung nehmen, ob die Erfindung für den fachkundigen Leser naheliegend war.