

### THREE EUROPEAN CASES ON EQUIVALENCE. WILL EUROPE ADOPT CATNIC?

The three cases examined here show a certain tendency of European courts to follow the Catnic approach. If this may assure uniformity of criteria it does not assure uniformity of decision. The first case is the Muller-Hilti case, pipe clamp, decided in Germany, France and Switzerland, with different results. For some courts, there was literal infringement. For others, there was no infringement, not only literally but even by equivalence. Some court claimed to have followed the Catnic methodology.

The second case is an English one, where the three judges of the Court of Appeal have applied Catnic, reaching different conclusions.

The third is an Italian case, where the Court of Appeal of Milan has applied a reasoning similar to Catnic, with some corrections.

#### 1. *The precedent: the Epilady case.*

In the Epilady cases<sup>1</sup>, no common way of reasoning of European Courts in the matter of patent interpretation could be found<sup>2</sup>. Apart from the differences of result, the way of reasoning of the various European Courts appeared to be totally different. In fact:

- i) The Austrian Court held that infringement by equivalence requires an *immediate understanding* that the alleged infringement is substantially similar to the claim. If the understanding is not immediate (as the complex explanations of the parties in the case at stake made it clear), there is no equivalence<sup>3</sup>;
- ii) the German Court held that a claim can be extended to the *more general principle deductible by abstraction*. A specific embodiment does not limit the protection, if the expert can abstract from the words used and derive from the patent a more general teaching<sup>4</sup>;
- iii) the Italian Court held that an accused device that obtains a similar result is an infringement *even if it can be inventive*<sup>5</sup>;

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<sup>1</sup> All quotations of the Epilady cases are taken from Marks & Clerk, European Patent Infringement Cases, edited by A. Wilson, J.D.C. Turner, R. Sullivan, Trenton G.B. 1999.

<sup>2</sup> In the Epilady case a patent (EP 0 101 656) claiming a device for removing undesired hair from human body (the Epilady patent, owned by Improver Corp.), was asserted against a similar device (Lady Remington) made by Remington. The patent claimed a device having a rotating helical spring. The alleged infringement (for which a patent was obtained in America: USP 4,726,375) had a rotating rubber roller provided with slits.

<sup>3</sup> "There is only an equivalent infringement if the means in question are readily apparent for the solution of the relevant problem to the man skilled in the art on the basis of his knowledge and on the basis of the means given in the patent, without the need for special consideration. The lengthy appeal statements relating to equivalence themselves provided evidence enough that complicated deliberations were necessary in order to arrive at the arcuate rubber roller in the Lady Remington when starting from a helical spring, and these formed too great a step". Vienna Court of Appeal, July 31, 1989, at p. 51.

<sup>4</sup> "The average person skilled in the art will interpret the helical spring here not as a spring but as a resilient body with gaps. It is obvious that the helical spring is not used as an actual spring and its very use according to the teaching of the patent in issue requires from the person skilled in the art the abstraction that said spring is a resilient element which on bending opens on the convex side and closes on the concave side. This abstraction belonged to the expert knowledge on the basis of the prior art and was disclosed by the claims of the patent in issue seen in the light of the description" Dusseldorf Court of Appeal, Nov. 21, 1991, at p. 216

<sup>5</sup> "If the way of functioning implies the teaching of the patent in suit, the difference between the material used ... suggests to the court that the reason why Remington is not allowed to carry out or use its (technology) is to be found in sect. 5 of the law (which provides that a dependent invention cannot be exploited without the consent of the prior patentee)". Court of Milan, May 21, 1992, at p. 283.

- iv) the Dutch Court held that a device which falls into the *general inventive idea*, as expressed in the claims, is an infringement, unless the conclusion jeopardizes the right of third parties to legal security<sup>6</sup>;
- v) the English courts adopted the *Catnic test* (i Does the variant materially changes the technical result? If no ii) Is the variant obvious at the date of publication of the patent? If yes iii) Does the interpreter understand that strict compliance with the terms of the claims is essential? If no, there is infringement), but came to different results, especially in the application of the third tenet<sup>7</sup>.

## 2. *The Muller-Hilti case.*

The Muller-Hilti case deals with a European patent (owner by Muller: EP 0 319 521) concerning a pipe clamp. Claim 1 (divided into the various elements, according to the analysis made by the German BGH - that simplified the patent, without re-writing -) is as follows:

1. *A pipe clamp consisting of*

(a) *A circular bracket (12)*

(b) *with at least one opening,*

(c) *that can be closed by a tension screw (10)*

2. *the foot of the tension screw (10) is located with threaded contact on one side of the opening characterized in that*

3. *the head (24) of the tension screw (10) is*

(a) *capable of being inserted on the other side of the opening through a hole (36) in a flange (20) mounted on the bracket (12), namely*

(aa) *axially with respect to its central axis,*

(b) *and is held there by means of a washer (38)*

(aa) *with an elongated hole (40) open at one hand*

(bb) *which is introduced before tightening between head (24) and flange (20).*

And here are the figures:

(see fig. 1)

In other words, a pipe clamp having at least one opening has a screw, which is engaged with its foot in a flange, while the head can enter into a hole of the other flange. A washer is inserted between the head of the screw and the flange, said washer having an elongated hole large enough to receive the shaft of the screw, but narrow enough to keep the head of the screw, so that the screw can be fastened easily and quickly.

Muller brought actions against Hilti in Germany, Switzerland and France, alleging that the clamp sold by Hilti violated his patent. The Hilti clamp is also patented (EP 0 471 989), and can be described with the abstract of the patent:

*In a pipe clamp, a locking flange (12) has a through-opening (15) whose diameter corresponds at least to that of the head (14) of a locking bolt (13). Furthermore fitted to the locking flange (12) is a catch plate (16), which can be pivoted away from the locking flange (12) about a pivoting axis, against the force of an elastic element (22). The clamp furthermore has an opening whose width is less than the diameter of the head (14) of the bolt (13) and which is open towards the edge of the catch plate (16) which is opposite to the pivoting axis.*

<sup>6</sup> "It is fair that the applicant who mentions the spiral spring... should also obtain protection with regard to a different hair gripping... Whether such a protection is fair towards third parties has to be decided according to what a skilled person would expect as to the extent of protection... Third parties should realize that the concept of the spiral spring in the patent claim may be generalized in such a manner that a device such as the Remington one falls within the scope of protection conferred by the patent". Hague Court of Appeal, Feb. 20, 1992, at p. 301.

<sup>7</sup> "The hypothetical skilled man .. Would have been in my judgement entitled to think that the patentee had good reasons for limiting himself, as he obviously appears to have done, to a helical coil". High Court of Justice, May 16, 1989, at p. 354

And here are the figures:

(see fig. 2)

#### 4. *Two solutions.*

While the question of validity was almost not an issue (the patent was held valid in all the decisions), great differences exist on the question of infringement. All the first instance decisions were reversed in appeal. The appeal decisions in the various countries are different. The decisions of the courts therefore were 3 on behalf, and 3 against the patentee. Only the German Supreme Court shifts the balance against the patentee, adding a fourth decision against Muller. But I would be reluctant to conclude that the case can be disposed of with 4 scores against 3.

There is no doubt that the Hilti product meets almost all the limitations of claim 1 of Muller. The only doubt is whether it reproduces element 3 (b) (bb), and more precisely whether the washer or catch plate 16 of Hilti is or is not “introduced”.

For some courts, also the Hilti washer is introduced in the sense of the patent, so that there is infringement. For instance, the Appeal of Paris Nov. 19, 1999 (issued after having considered all the other decisions), states that the manner of introduction of the washer between the head of the screw and the flange is irrelevant:

*Having considered that claim 1 of the patent does not mention in any precise way the length of the screw positioned, the description, mentioning the inconveniences of the long screws of the prior art, indicates that the invention has as purpose the creation of a locking clamp easy to be handled and to be closed even with a very short locking screw; that this does not exclude, therefore, that the device claimed can be positioned with a long screw; that it will be observed that the figures 1 and 6 of the patent represent short screws as compared with those of the prior art documents DE A 33 08 459 but with a length remarkably exceeding the length of the screws (simply slightly longer than the opening gap of the locking clamp at the moment of installation) mentioned in the embodiment illustrated (p. 5. Lines 7 to 12 of the description);*

*Having considered that the indications of the description mentioned above concerning the sliding movement provided for the washer –even though not exclusively concerning claim 3 relating to the washer installed in a sliding way linked inseparably to the tongue (which is only mentioned in lines 21 and following of page 4) are not of general scope, since they expressly declare to be referred to an “embodiment”, that both the content of claim 1 and the general part of the description only mention “a positioning of the washer between the head and the flange before the tightening” without explaining the methods of its positioning, that figures 2 and 3 of the patent which show a washer destined to slide long the tongue only represent an embodiment; that claim 1 also interpreted in the light of the description cannot be considered as exclusively covering a washer positioned by sliding....*

On the contrary, the Court of Appeal of Dusseldorf held that “introduced” in the sense of the patent means “inserted along a straight line”. But more particularly, the Court identified what the patent considered to be the unresolved problems of the prior art (too long screws, fastening the flange along a circular path), and concluded that the horizontal insertion of the washer was of the essence of the invention. The holding of the Bundesgerichtshof, confirming on this point the Court of Appeal, is worth mentioning here:

*According to the Court of Appeal findings of fact the expert. In light of the information on the state of the art communicated to him in the patent specification, and in light of the technical problem to be solved by the invention, will recognize that the long screw and screwing distance used in the state of the art are a consequence of the unfavorable movement between the tension screw and the tension flange, and not a consequence of “being introduced”. He will also recognize that one solution according to the state of the art requires long screws since the screw head moves into tightening position along a circular path with its pivot close to the flange, while in the other*

*solution according to the state of the art the long screws are necessary because the screw head and the flange surface are brought together in the tightening position along an almost cycloid or involute path. These realizations will prevent the expert interpreting the teaching of feature 3 b) bb) in the sense argued in the appeal on the law that the only decisive factor is “being introduced”. On the contrary, he will interpret the teaching to mean that it relates to the manner and form of movement with which the washer is brought into tightening position. He will then conclude that “introducing” means inserting the washer into the tightening position along a straight line along a flange surface between the flange and the screw head. This meaning, determined on the basis of a functional approach and adopted by the court of appeal as a matter of fact and hence to be accepted on appeal on the law, does not represent a restriction of the wording as must be intelligently interpreted by the expert on the basis of the total content of the patent specification...*

#### 5. *Literal interpretation and technical problem.*

The decisions which went against the patentee are based on a rather literal interpretation of the claim and the description, while the contrary decisions make reference to the technical problem, seen in the light of the prior art.

*Literal interpretation.* The wording of the claim makes no reference to the manner of insertion of the washer. The only word used is “inserted”, and such a word says nothing of the modalities of insertion. Also the specification (so thoroughly analyzed by the Appeal of Paris) does not introduce any limitations. It is not surprising that a literal interpretation of the claims, as well as the description, cannot limit the patentee’s right to a particular direction of the insertion.

*Technical problem.* In order to change the conclusion, one should look at the invention in the light of the prior art, and to the technical problem.

The most pertinent pieces of prior art where two German patents, namely...

Here are the respective figures.

(fig. 3)

It is a constant practice of the German Courts (but followed also by others) to interpret the expressions used by the patentee with consideration not only to the words used but also to the prior art mentioned in the specification. Said prior art is considered to form part of the language and expertise of the patentee, so that his intention can be reconstructed with reference to that language and expertise. The reasoning of the Court concluding against the patentee was, therefore, a syllogism as follows:

- The prior art used long screws, and the flange was tightened along a circular path,
- The patentee intended to overcome the difficulty of the prior art,
- Therefore the patentee uses short screws, and the flange is tightened along a straight path  
(Consequently: he who uses long screws and tightens along a circular path does not infringe).

#### 6. *Comment.*

I do not believe that the analysis made on the basis of the technical problem was correct. More generally, I believe that for claim interpretation such an analysis is not always proper and that it may bring to wrong results.

In the Muller-Hilti case, the analysis was correct in the examination of the prior art and in the identification of the unresolved problems. But it was incorrect to artificially enunciate the solution, and adjust the claims to that solution. It is simply untrue that the solution of the difficulties of the prior art was to introduce a washer longitudinally. But is even more incorrect to read the claim as if it recited that specific way of operation. No matter what was the difficulty of the prior art, and what would have been the best solution, the claim does not suggest inserting the washer longitudinally. It simply suggests inserting the washer.

The Muller-Hilti case is a good example of the danger of an analysis conducted in the light of the technical problem. The scope of the patent is determined by the claims, and not by the technical problem solved by the inventor. A consideration of the technical problem is necessary in the examination phase, before the examining office. The invention has to be identified and properly claimed. But when the patent is granted, the claims are carved in stone. They cannot be stretched to encompass (or reduced to cover only) something that was not said but that, in consideration of the technical problem, would have been more appropriate.

#### 7. *The Bundesgerichtshof and Catnic.*

The Muller-Hilti case is important for another aspect, namely for the *dicta* of the BGH concerning the doctrine of equivalence (DOE). Curious *dicta*, to use an understatement. For not being accused of misinterpreting the court, let me repeat here the pertinent passage:

*According to the principles established by this Court on the old law, equivalence in the patent law sense of the word only applies if the conflicting embodiments are based on the same technical problem and achieve the same technical effect but use different means to solve the problem and hence to achieve the same effect. Consequently it is necessary that the substituted means used in the contested embodiment, instead of the means expressly recommended in the patent, serve to solve the concrete problem set in the patent and achieve the effect intended by the patent at least essentially. These principles also apply for the determination of the scope of protection of a European patent. They correspond to the principle developed in English case law within the framework of the so-called Catnic questions... modifications are outside the scope of protection of a patent if they have a significant effect on the functions of an invention..*

What can be said of these conclusions? Is this the concept of equivalence accepted (curiously, for European patents, as different from national ones) by the German Courts? Or is the Segmentation device principle still valid<sup>8</sup>? And do the German Courts really apply the Catnic test?

#### 8. *The English case: Wheatley v. Drillsafe.*

In a recent article<sup>9</sup> J. Turner said that the “Catnic algorithm” is wrong, and diverges from the continental European practice. I made a comment<sup>10</sup> defending Catnic, saying that the apparently different decision of the Court of Dusseldorf in the Epilady case has not to be interpreted as a divergence from Catnic, and that such a difference of conclusion can also be found in the same jurisdiction. This article attracted the attention of Aldous, L.J., and I was honored to receive from him a copy of a decision of the English Court of Appeal (*Wheatley v. Drillsafe*) that demonstrates the correctness of my opinion<sup>11</sup>. It is a most interesting decision. Three judges applied Catnic, but reached two, or perhaps three, different views. Let me explain how.

The Catnic questions, put by Diplock, L.J. in the Catnic decision<sup>12</sup>, and then re-formulated by Hoffmann J. in the Improver-Remington case, have to be answered favorably in the order and are as follows:

- i) *Does the variant have a material effect on the way the invention works? If yes, there is no equivalence. If no*
- ii) *Would it have been obvious to a man skilled in the art that the variant would work in the same way? If no, there is no equivalence. If yes*
- iii) *Would the skilled reader nevertheless have understood that the patentee intended to confine his claim to the primary meaning of the words used? If yes, there is no equivalence.*

Each of the three questions leaves room for doubt. For instance

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<sup>8</sup> BGH March 17, 1994, in Marks & Clerk, p. 224 “The scope of equivalence requires the skilled person being able to derive the variation from the patent without the need for technical input”.

<sup>9</sup> J.A. Turner... E.I.P.R.

<sup>10</sup> Franzosi, In defense of Catnic, E.I.P.R.

<sup>11</sup> *Wheatley v. Drillsafe*, Court of Appeal July 5, 2000, case 1999/0327/3

<sup>12</sup> *Catnic Components v. Hill & Smith Ltd.*, House of Lords Nov. 17, 1980, in Marks & Clerk, p.341

- the answer to the first question depends upon the level of generality at which one describes the way the invention works. It should be not taken for granted that everybody may agree on the level of generality;
- the second question may be put in two ways. As Hoffmann put it, “the question supposes that the skilled man is told of both the invention and the variant and asked whether the variant would obviously work in the same way. An affirmative answer would not be inconsistent with the variant being an inventive step.” On the contrary, Mayo J. in the Hong Kong first instance decision of the same *Epilady* case<sup>13</sup> was persuaded that the evaluation should be made taking into consideration the specification without knowledge of the respondent’s device.
- The third question is likely to give rise to more diverging views. For instance, the English court in the *Epilady* case held that the hypothetical skilled man to whom the patent id directed is not “assumed to be skilled in patent law and he would be entitled to think that the patentee had good reasons for limiting himself, as he obviously appears to have done”, to the literal meaning of the words. On the contrary the German court, analyzing that same text, held that the skilled reader, on the basis of the prior art, could make an abstraction: this “belonged to the expert knowledge and was disclosed by the claims of the patent in issue seen in the light of the description”.

In the *Wheatley v. Drillsafe* case the patent concerned a method for making a circular hole in a tank lid, by means of a rotary hole-cutter. The prior art had to make first a pilot hole, in order to keep the rotary hole-cutter in place and prevent wandering. The patent claimed a method with “a center less hole cutter”, namely with a hole cutter that did not use the central pilot hole. The accused infringer had a hole cutter that did not use a pilot hole, but had a probe or spindle that penetrate in the lid without passing through, said probe or spindle preventing wandering of the hole cutter. The three judges applied the *Catnic* test, and reached the same conclusion for the first two questions. The third question, however, divided their Lordship. Aldous LJ held that “the skilled reader would interpret the claim as excluding anything which would penetrated the tank lid”. The defendant did not penetrate and was therefore held infringer. Sedley LJ in a very candid opinion said that “the critical question is in the end one of first impression: is the (accused) device a centreless hole-cutter? In my opinion it is not”. Mance LJ excluded infringement saying that “the hypothetical skilled person is not assumed to be skilled in patent law; he would not regard himself as free to disregard any apparent limitation in the patent, simply because a claim in wider generic term might (at least later and with insight) be suggested. The way in which the patent was here actually formulated, and the scope which it was actually given, may have derived from considerations internal to the patentee thinking which, however well- or ill-founded they may have been, were perceived by the patentee as important”.

#### 9. *The Italian case; Forel.*

The Italian jurisprudence has been traditionally not abundant of decisions on DOE. Cases are traditionally referred to for their technical aspects to technical experts, whose conclusions are frequently followed by the courts. Also the doctrine is not rich. But now the situation is changing. More and more the judges review the technical opinions to see whether they are correct from a technical point of view and moreover with the law.

With *Forel v. Lisec*<sup>14</sup> the Court of Appeal of Milan has filled the gap, and abundantly. I consider this decision one of the most important even issued internationally on the matter of DOE. The case concerned a patent for an apparatus working on closed hollow frames for glass panels. The apparatus had a tool capable of performing three operations, namely to make a hole on the external part of the frame, to inject into the hole hygroscopic material, to seal the hole. The apparatuses alleged to be infringing were two, one making the hole on the internal part of the frame, and the other working on a frame already perforated. Firstly the Court, having recognized the interest of protection of third parties as the reason for attributing controlling value to claims, held however

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<sup>13</sup> Marks & Clerk, p. 241

<sup>14</sup> *Forel v. Lisec*, Court of Appeal of Milan, July., 2000

that a claim is a legal document, that as such requires an interpretation. Such interpretation has to be in good faith, so that it is not possible to give a literal interpretation that clearly has no or limited technical meaning and say that such an interpretation is the only one which respects third parties' interest. Then the court expressed two principles:

- i) a *conscious* limitation cannot extend to equivalent means;
- ii) a *technically significant difference* (between the alleged infringement and the claim) cannot constitute infringement.

Under i), the court considered that a constant repetition of a limitation in the patent is an indication of the fact that the patentee was aware of the limitation. The court therefore implicitly distinguishes between non-intentional (or non-perceived) limitation that may not be prejudicial and conscious limitation that prevents application of the DOE. (This attitude of tolerance for limitations of which the patentee is not aware is typical of several European decisions, and is not shared by the American courts.)

Under ii), the court held that a different engineering, leading to a technically different operation, excludes the DOE. The court gave relevance to said technical difference, holding instead "frankly irrelevant" whether the variant had obtained or not patent protection<sup>15</sup>.

Consequently the court absolved the two apparatuses. (An identical conclusion was reached by the Landgericht and the Oberlandesgericht of Dusseldorf in a case involving only an apparatus of the second type, i.e. working on a frame already perforated)

It seems to me that this decision applies at least two Catnic principles. The first, when it checks whether the variant has a material effect upon the manner in which the invention works. The third, when it checks whether the inventor was aware of the importance of the limitation. The second principle is expressly rejected, but I doubt that it is somehow included into the first. In fact, if the evaluation of obviousness is made having the accused device under the judge's eyes, as Hoffman LJ suggested, what remains to establish is the substantiality of the difference between the claim and the infringement.

#### 10. *Conclusion. A European Court?*

In the end, I would not be surprised if in Europe everybody applies Catnic. But do not expect uniformity because of that.

A final remark is appropriate. The Epilady cases raised a host of discussion in Europe. Scholars and practitioners had difficulty in understanding or accepting that the various national courts could issue different decisions for the same patents. It is true that national patents were involved., and not the various fractions of the same European patent. But since the various national patents law are harmonized in Europe, at least on the basic points indicated by the Strasbourg convention, different conclusions seemed hardly acceptable.

Now we have these cases, where the national courts do not apply different principle, but remain divided. And, what should worry more those who were worried with Epilady, not only the courts of country A decide differently from the courts of country B, but the lower courts of country A decide differently from the lower courts of the same country A. In addition, judges of the same court are divided.

Is a unitary court of justice for patent matters the solution of the problem? Of course, a unified court of justice for patent matter would reduce the uncertainty. But this simply because it is just one court, so that no other court could issue conflicting decisions.

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<sup>15</sup> The decision goes in the same sense of BGH Befestigungsvorrichtung II, July 12, 1980, Marks & Clerk, p. 194 that in the pertinent passage says: "Insofar as (an alleged infringement which is also inventive) is based on the older invention .. it makes special use of the achievements of the older invention. It would therefore be unjustified if such use were outside the scope of the older invention and the earlier inventor thereby deprived of his due reward....The further invention may certainly be inventive.. however it is dependent on the teaching of the older patent and falls within the latter's scope as a dependent invention". For Italy, see the Improver decision at footnote 5.

*Avv. Prof. Mario Franzosi*  
*Attorney in Milan*  
*Visiting Professor. University of Washington*  
*I.P.C. University of Verona*