

**HIGH COURT OF AUSTRALIA**

GIBBS ACJ, STEPHEN, MASON, AICKIN AND WILSON JJ

**GIBBS J:**

I have had the advantage of reading the reasons for judgment prepared by my brother Aickin and am in agreement with them. I would accordingly dismiss the appeal.

**STEPHEN J:**

I agree that, for the reasons given by Aickin J., this appeal should be dismissed.

**MASON J:**

I agree that the appeal should be dismissed for the reasons given by Aickin J.

**AICKIN J:**

This is an appeal by special leave from the Full Court of the Federal Court of Australia which dismissed an appeal from a decision of Rath J. in the Supreme Court of New South Wales. Rath J. had ordered that the appellant (the holder of Australian letters patent) should file and serve a further and better affidavit of discovery in a patent action in which it had sued the respondent for infringement of Australian Patent No. 459109 for "improvements in or relating to injectable therapeutic compositions." The respondent denied infringement and counterclaimed for a declaration of invalidity. The particulars of the grounds of invalidity were that the patent specification did not comply with s. 40 of the *Patents Act 1952 Cth*, as amended, ("the Act"), that the invention claimed was not an invention within the meaning of the Act, that the invention was obvious and did not involve an inventive step having regard to what was known or used in Australia on or before the priority date of each claim, and that the invention was not novel in Australia on the priority date of each claim. The respondent failed to give any particulars of its contention that the invention was obvious, as required by ss. 117 and 166 of the Act, but did give particulars as to want of novelty. However no step in the proceeding was taken to enforce the obligation to give particulars of obviousness, limited though they may generally be.

The appellant gave discovery but the respondent sought an order for further discovery to include documents of the following classes — (a) documents relating to research and

development and experimental work on the claimed invention both before and after the priority date of the subject letters patent; (b) documents relating to the provisional application for the patent and documents relating to the application for the complete patent, as the case may be, both in the United Kingdom and in Australia and elsewhere insofar as they contain matters relevant to (a), and in any event, all such documents for the United Kingdom and Australia; (c) documents relating to infringement, revocation or opposition proceedings in any country of the world which a corresponding patent has issued or been applied for, in so far as they contain admissions by or on behalf of the plaintiff and relevant to (a).

Rath J. refused to make any order as to the documents in par. (c) but made an order for further discovery in terms of par. (a), stating in his reasons for judgment that the order under par. (a) should be understood as extending only to documents coming into existence after the priority date in so far as they related to work done prior to that date. He also made an order in terms of par. (b) but deleting therefrom the words "and elsewhere" and the words "and in any event, all such documents for the United Kingdom and Australia". The appellant appealed from that decision to the Full Court of the Federal Court. There was no cross appeal by the respondent.

The situation is somewhat unusual in that the application was made to Rath J. at a stage in the proceedings where an order for directions having been made that expert evidence should in the first place be given on affidavit, the respondent and the appellant had each filed affidavits by its experts. Rath J. in the course of his reasons for judgment referred to the fact that the expert evidence indicated that experiments would have been necessary for the confirmation of the therapeutic effectiveness of the combination referred to in the specification, from which he deduced that the inventor's research and experimentation leading to his invention were relevant to the issue of obviousness. He also referred to parts of the specification which he said appeared to refer to the inventor's researches and experiments.

In the Full Court of the Federal Court Franki J. (with whom the other members of the Court agreed) said that there was authority for the proposition that evidence of the inventor as to work done prior to arriving at his invention was admissible, that knowledge of such work may be useful in cross examination and that it would be relevant in establishing whether the state of the art in the United Kingdom was the same as that in Australia.

No doubt exists as to the criterion by which there is to be determined what documents are relevant in any such proceeding, that is, relevance to the issues as appearing in the pleadings. In the absence of any particulars of obviousness it was assumed below that what was relied upon was only common general knowledge in Australia as at the priority date.

It is however to be borne in mind that it cannot be assumed that common general knowledge in the place where the invention was made, in the present case the United Kingdom, is the same as common general knowledge in Australia and that what has to be proved by evidence in any case in which obviousness is relied upon is the state of common general knowledge in Australia.

The appellant contended that both principle and the authorities established that experiments carried out by an inventor in the course of the work which he undertook leading up to the invention were irrelevant to the issue of obviousness and therefore documents relating thereto were not discoverable. For the respondent it was argued that a line of authorities established the contrary proposition and that in any event discovery as sought was available. In these circumstances it is necessary to examine in some detail the various authorities. There are few relevant Australian authorities on this subject and the cases referred to were mainly cases in the English courts, including the Privy Council.

It is as well to bear in mind that the question of obviousness involves asking the question whether the invention would have been obvious to a non-inventive worker in the field, equipped with the common general knowledge in that particular field as at the priority date, without regard to documents in existence but not part of such common general knowledge. The question is not whether it was or would have been obvious to the inventor or to some other particular worker in the field: *Minnesota Mining and Manufacturing Co. v. Beiersdorf (Aust.) Ltd.*<sup>1</sup> It was argued by the appellant that, because of this fundamental characteristic of the nature of obviousness, experiments or investigations made by the inventor were irrelevant to that issue because they threw no light on the manner in which a non-inventive skilled worker

<sup>1</sup> (1980) 144 C.L.R. 253, at pp. 293-295.

would have approached the problem. For this basic proposition the appellant relied on *Crane v. Price*.<sup>2</sup>

The cases referred to appear to form two parallel, but contrary, series which to a great extent succeed in ignoring each other. It is convenient to consider them in chronological order. In *Crane v. Price*<sup>3</sup> Tindal C.J. delivered the judgment of the court and said:

It was objected, in the course of the argument, that the quantity or degree of invention was so small that it could not become the subject matter of a patent — that a person who had procured a licence to use the hot-air blast under *Neilson's* patent, had a full right to subject to that blast coal of any nature whatever, whether bituminous or stone coal. But we think, if it were necessary to consider the labour, pains and expense encountered by the plaintiff in bringing his discovery to perfection, that there is evidence in this cause that the expense was considerable and the experiments numerous; but, in point of law, the labour of thought or experiments and the expenditure of money, are not the essential grounds of consideration upon which the question, whether the invention is or is not the subject matter of a patent, ought to depend; for if the invention be new and useful to the public, it is not material whether it is the result of long experiments and profound research, or whether by some sudden and lucky thought, or mere accidental discovery.

This case represented an important stage in the development of the patent law in that it established for the first time that there could be a valid patent for a process, as distinct from a product; see *National Research Development Corporation v. Commissioner of Patents*.<sup>4</sup>

It is true, as Whitford J. said, in *Halcon International Inc. v. Shell Transport and Trading Co. Ltd.*<sup>5</sup> when considering the passage which I have quoted above:

I may say that, of course, one must recall that this judgment [i.e. *Crane v. Price*] was given at a date when the distinction which subsequently came to be drawn between the objections of want and [sic] novelty and obviousness was not present to the minds of those then trying patent cases.

*Crane v. Price* was not concerned with the issue of obviousness, a conception which did not emerge until later in the nineteenth century; see the discussion in H.G. Fox on *Monopolies and Patents* (1947), pp. 214-243, where the development is traced. It was however well established by the end of that century notwithstanding protests by some judges; see for example Lord Esher

<sup>2</sup> (1842) 4 Man. & G. 580; 1 Webster's P.C. 393 [ 134 E.R. 239].

<sup>3</sup> (1842) 4 Man. & G., at p. 605; 1 Webster's P.C., at p. 410 [ 134 E.R., at pp. 248-249].

<sup>4</sup> (1959) 102 C.L.R. 252, at p. 270.

<sup>5</sup> [1979] R.P.C. 459, at p. 464.

M.R. in *Edison Bell Phonograph Corporation Ltd. v. Smith*.<sup>6</sup> The objection of obviousness has however had a statutory basis in the United Kingdom since the *Patents Act 1932* and in Australia since the *Patents Act 1952*.

The general proposition of Tindal C.J.<sup>7</sup> was not directed to the question of evidence. It remains true that a valid patent may be "the result of long experiments and profound research" or of "some sudden and lucky thought or of mere accidental discovery" notwithstanding the development of the objection of obviousness.

The question of admission of evidence of research and experiments by the inventor does not appear to have arisen directly until *Riekmann v. Thierry*<sup>8</sup> and reliance was placed by the appellant on the speech of Lord Davey. In order properly to understand that decision it is necessary first to look at the proceedings before the trial judge, Charles J.<sup>9</sup> and the decision of the Court of Appeal.<sup>10</sup> The question was discussed before Charles J. in the course of argument. It was not contested by counsel that such evidence was admissible where want of subject matter (i.e. obviousness) was in issue. The inventors were called and gave evidence as to experiments made. This was objected to as irrelevant and there followed this discussion:<sup>11</sup>

**Charles, J.**—I suppose the materiality of it is on the question of subject-matter. Sir *R. Webster*, Q.C. — The Defendant does not say the invention is not good subject-matter, if it is new; but he says the same thing has been described in a series of documents. *Bousfield*, Q.C. — In *Siddell v. Vickers*,<sup>12</sup> a difficult case, the question was whether it was subject-matter to make a combination by applying a ratchet to a wheel with a chain round it to turn forgings, the application of a ratchet to turn a wheel being known. The case was won entirely by evidence given of a number of attempts made in order to get over the difficulty, and the failure of all except the device of the ratchet. **Charles, J.** — Was not subject-matter disputed in that case? *Bousfield*, Q.C. — Yes. **Charles, J.** — On that issue, these experiments, I should be of opinion, are all evidence; but, if it is admitted here that the combination is good subject-matter, subject to the question of anticipation, what is the use of the experiments? You can re-examine if the point becomes material.

<sup>6</sup> (1894) 11 R.P.C. 389, at p. 398.

<sup>7</sup> (1842) 4 Man. & G., at p. 605; [ 134 E.R., at pp. 248-249].

<sup>8</sup> (1896) 14 R.P.C. 105.

<sup>9</sup> (1895) 12 R.P.C. 412.

<sup>10</sup> (1895) 12 R.P.C. 543.

<sup>11</sup> (1895) 12 R.P.C., at p. 417.

<sup>12</sup> (1890) 7 R.P.C. 292.

After the witness had been cross-examined, the question of evidence of experiments by the inventors was again raised on the basis that the defendant had raised the question of subject matter. Counsel for the patentees then said: "in such a case the Plaintiff is always allowed to give evidence of his experiments in order to show what ingenuity he has exercised"<sup>13</sup> though the case relied upon for that proposition (*Vickers v. Siddell*)<sup>14</sup> does not appear to support it because the evidence as to experiments in that case related to those performed by the alleged infringer.

Charles J. said: "The evidence is relevant if the question of subject-matter is to be raised"<sup>15</sup> and in his judgment referred to the evidence as to experiments as follows:<sup>16</sup>

Now, bearing in mind these principles, I come to the evidence in this case; and, as to the invention, I have the evidence of both the Plaintiffs with regard to what they did, and what they had been doing since the year 1884 in reference to this matter. There can be no doubt about it that something of this kind was wanted in the trade — there is no question about that. The japanning, which had formerly been used, undoubtedly did come off; and, moreover, the japanning could not be successfully used except when the eyelet was black. Now, it was desired to get, if possible, an eyelet from which the celluloid would not come off, and to do that in all sorts of colours; and, from 1885 down to 1889, the two Messrs. Thierry were constantly occupied in trying experiments with a view of getting this permanent covering to the eyelet. Over and over again they failed. I need not go through the whole list of experiments. Amongst them they invented a very ingenious celluloid eyelet with a metal washer; that did not succeed. And then, in 1889, they invented an eyelet which had a screw, which also turned out a comparative failure. It was not until 1891 that they hit upon the combination which is the subject-matter of the present patent.

He added:<sup>17</sup>

The combination of the celluloid with the metal in the particular form which they have adopted is assuredly useful. I think it is ingenious. I think that the evidence of the two Thierrys is amply sufficient to warrant me in coming to that conclusion.

The case went on appeal to the Court of Appeal which, "with reluctance", dismissed the appeal. Their Lordships referred without disapproval to the evidence of the patentees but attributed less significance to it than had Charles J.

<sup>13</sup> (1895) 12 R.P.C., at p. 417.

<sup>14</sup> (1890) 7 R.P.C. 292.

<sup>15</sup> (1895) 12 R.P.C., at p. 417.

<sup>16</sup> (1895) 12 R.P.C., at p. 427.

<sup>17</sup> (1895) 12 R.P.C., at p. 428.

An appeal to the House of Lords was allowed (Lord Halsbury L.C., Lord Macnaghten and Lord Davey; Lord Shand dissenting). The majority was of opinion that the alleged invention was obvious. Of the majority only Lord Davey (with whom Lord Macnaghten agreed) referred to the evidence of experiments. His Lordship said:<sup>18</sup>

I must say one word, my Lords, on the point which was so much pressed upon us by the learned Counsel for the Respondents, that the subject of the respondents' patent was, in fact, the result of prolonged study and experiments. My Lords, I am not impressed by this argument. It appears that the Patentees were not aware of either *Joyce's* or *Smidt's* patents, and also thought that the device of lapping the celluloid round the flange was a new one. The force of the argument, of course, depends very much on the inventive faculty and knowledge of the experimenters. It might even be the case that they were endeavouring to find some novel and ingenious way of dealing with celluloid which would be patentable, and found themselves compelled to fall back on the well-known device of sticking on a plastic material by turning it over the end. (That language, I should observe, is not mine, but that employed by the learned Counsel for the Respondents in the course of cross-examination.) I agree that the question of patentable novelty must be determined from the subject itself, and not from evidence that a particular person was a longer or shorter time in arriving at it.

Lord Shand, who dissented, made passing reference<sup>19</sup> to the evidence of experiments and did not discuss its relevance.

It was argued by counsel for the respondent that Lord Davey was there speaking of novelty and not obviousness but in my opinion the context makes it clear that the expression "patentable novelty" used by Lord Davey refers to lack of obviousness in what was acknowledged to be novel. He said:<sup>20</sup>

It is not enough that the purpose is new or that there is novelty in the application, so that the article produced is in that sense new, but there must be some novelty in the mode of application. By that I understand, that in adapting the old contrivance to the new purpose, there must be difficulties to be overcome, requiring what is called invention, or there must be some ingenuity in the mode of making the adaptation.

It is indeed difficult to imagine a situation in which prior experiments as such could throw any light on novelty.

<sup>18</sup> (1896) 14 R.P.C., at p. 122.

<sup>19</sup> (1896) 14 R.P.C., at p. 117.

<sup>20</sup> (1896) 14 R.P.C., at p. 121.

The next case in which this question arose was *In the Matter of I. G. Farbenindustrie A.G.'s Patents*<sup>21</sup> which was an application to revoke three patents relating to the manufacture of dyestuffs. The validity of the patents was attacked on a variety of grounds including lack of subject matter. Maugham J. (as he then was) said:<sup>22</sup>

In a sense it is still true to say that there is no prevision in chemistry. Any one of the millions of dyestuffs in question might be found to possess some unexpected and distinctive properties, either of colour or fastness, or to have some other incidental advantage. There is no short cut to knowledge of this kind. A laborious and systematic investigation of a long series of combinations becomes necessary; and it is the fact that of recent years certain industrial organisations with enormous financial resources have established laboratories where numbers of chemists of high scientific attainments devote their lives to a systematic examination on scientific principles of a vast number of chemical substances.

In considering the question of subject-matter in relation to selection patents it is important to bear in mind that the Courts are not in any way concerned with the state of mind of the inventor. Patents may be granted for inventions which have been the result of profound research or of some sudden and lucky thought or of mere accident, and also for inventions imported from abroad without the knowledge of the inventor. (See per Chief Justice Tindal in the case of *Crane v. Price*<sup>23</sup>)

His Lordship continued:

As a consequence of the view that what has occurred in the mind of the inventor is immaterial, it is quite the exception for the "true and first inventor" to be called to give evidence in the modern patent action. The Court is concerned, so far as subject-matter is concerned, only with the results. The invention must, of course, add something of a substantial character to existing knowledge; but the Courts do not inquire into the way in which the conquest was achieved. If the language of metaphor may be used, the citadel may be captured either by a brilliant coup-de-main or by a slow and laborious approach by sap and mine according to the rules of the art; the reward is the same. The language used by eminent judges in analogous cases supports the same view (see *Taylor & Scott v. Annand*;<sup>24</sup> *Lancashire Explosives Co. Ltd. v. Roburite Explosives Co. Ltd.*<sup>25</sup>).

The context shows that his Lordship did not intend to limit the proposition which he stated to cases of selection patents.

<sup>21</sup> (1930) 47 R.P.C. 289.

<sup>22</sup> (1930) 47 R.P.C., at pp. 321-322.

<sup>23</sup> (1842) 4 Man. & G., at p. 606; 1 Webster's P.C., at p. 411 [ 134 E.R., at p. 249].

<sup>24</sup> (1900) 18 R.P.C. 53, at pp. 62-63.

<sup>25</sup> (1895) 12 R.P.C. 470, at p. 475.



Notwithstanding the disapproval of Lord Davey and Lord Macnaghten and of Maugham J. the practice appears to have continued from time to time of calling evidence of the patentee's experiments in support of inventiveness or in rebuttal of allegations of obviousness.

The first occasion on which it appears that the use of evidence of what the patentee did in arriving at his invention was expressly approved by an appellate court was *Lightning Fastener Co. Ltd. v. Colonial Fastener Co. Ltd.*<sup>26</sup> a decision of the Privy Council. The patent in that case had been held valid by the trial judge, Maclean J., in the Exchequer Court of Canada,<sup>27</sup> but was held to be invalid if read widely, or not infringed if read narrowly, by a unanimous Supreme Court of Canada.<sup>28</sup> In neither of those judgments was any reference made to evidence of experiments by the patentee. However in argument before the Judicial Committee Counsel for the patentee said:<sup>29</sup> "The evidence is that the present inventor spent years of his life trying to improve upon *Aaronson* " (a prior patent). The Privy Council allowed the appeal. Counsel for the respondent had conceded that there was an inventive step but in giving the reasons of the Privy Council Lord Tomlin said:<sup>30</sup>

It is certain that the general mechanical idea of combining in this class of work all the necessary operations in one machine was novel and a perusal of the evidence of the inventor Sundback given before the Trial Judge satisfies their Lordships that, so far from the combination being obvious, it was only after years of work at the problem of how to produce stringers that the combination was recognised to be desirable or found to be possible, and that the inventive element necessary to constitute subject-matter is made sufficiently evident.

No comment on the admissibility of that evidence was made in argument or by their Lordships, and no reference was made to the earlier cases to which I have referred.

In *Howaldt Ltd. v. Condrup Ltd.*<sup>31</sup> evidence from the inventor to explain the history of previous attempts to make a successful secateur and as to how he invented it was admitted, apparently without objection, and Farwell J. said of it:<sup>32</sup>

<sup>26</sup> (1934) 51 R.P.C. 349.

<sup>27</sup> [1932] Ex. C.R. 89.

<sup>28</sup> [1933] S.C.R. 363.

<sup>29</sup> (1934) 51 R.P.C., at p. 361.

<sup>30</sup> (1934) 51 R.P.C., at p. 367.

<sup>31</sup> (1936) 54 R.P.C. 121.

<sup>32</sup> (1936) 54 R.P.C., at pp. 131, 133.

When one considers this matter, apart from the evidence, in the light of one's present knowledge, that appears to be an extremely formidable argument, but it is always difficult for both judges and witnesses to put themselves in the position of the inventor, that is to say to discard altogether the knowledge acquired by means of the disclosure of the alleged invention and look at the position fairly as it was before that disclosure. In a case of this sort it is most important to consider carefully the evidence which has been given to see how far what I may call, perhaps, one's prima facie view is the true view and the one which ought to prevail.

After all, in a case of this kind, if I may use a homely adage, the proof of the pudding is in the eating, and, when I find that the person who has made the invention, himself being a person skilled in the art, has had to take time and make experiments before he arrived at the solution, that it is a solution which has apparently been sought for for many years by various persons and has not been arrived at, although one person, the inventor of the Orag, got quite close to it, then I think in the light of that evidence the prima facie view which one might take of this matter must be displaced and I ought to come to the conclusion, and I do in this case come to the conclusion, that on the whole there is sufficient here to support the Patent.

To the same effect is the observation made by Lord Porter in his dissenting speech (with which Lord Atkin agreed) in *Electric and Musical Industries Ltd. v. Lissen Ltd.*<sup>33</sup> where he said:

On the evidence as I understand it I accept the view that some imagination and a great deal of experiment and calculation were required before it was ascertained that the use of the variable mu valve with grid bias volume control would prevent undue modulation distortion. Indeed until the Patent in suit there was no quantitative knowledge of the effects of using a variable mu valve, and some of those effects, namely, the discovery shown in Figure 3 of the Specification of the existence of two danger points, was a matter of surprise. It is easy for one not skilled in the art to see invention in a device which to the skilled mind is obvious. It is also easy after a discovery to say that the device is and always has been obvious. Informing my mind, however, so far as I am able by the expert evidence given before Mr. Justice Luxmoore, I am of opinion that an inventive step was required.

The majority of their Lordships do not refer to this point. Furthermore, neither the trial judge nor the Court of Appeal had adverted to this aspect, and the report of the argument at each stage of the proceedings does not refer to it.

<sup>33</sup> (1938) 56 R.P.C. 23, at p. 63.

The next case was *Allmanna Svenska Elektriska A/B v. Burntisland Shipbuilding Co. Ltd.*<sup>34</sup> The decision was that the patent in suit was invalid because of obviousness. Jenkins L.J. speaking for the Court of Appeal, after referring to the "Cripps question", said:<sup>35</sup>

It only remains to say that the question must be answered objectively, for it is immaterial that (as we do not doubt was the fact in the present case) the invention claimed was in truth an invention of Mr. Ericson, in the sense of being the result of independent work and research on his part — without knowledge on his part of many of the matters which must, on any view, be taken into account by the Court.

The inventor had given evidence, apparently without objection, as to the various steps which he had taken in working on the problem in Sweden and which led to his claimed invention. It was held that in the light of common general knowledge in England the invention was obvious, though it would not have been so in the state of knowledge in Sweden. It must now be borne in mind that the Court of Appeal applied a view of what was common general knowledge which has recently been rejected by this Court in the *Minnesota Case*,<sup>36</sup> but the case remains an example of the use without objection of evidence as to what the alleged inventor had done in arriving at his invention.

Reliance was placed by the respondent on *Benmax v. Austin Motor Co. Ltd.*<sup>37</sup> where the House of Lords upheld a decision of the Court of Appeal that the invention there claimed was obvious. Lord Morton said:<sup>38</sup>

The Zephyr seat being admittedly part of the stock of common knowledge, prior to the date of the Appellant's patent, the Appellant can only succeed, in my opinion, if it emerges from the evidence that the application of the device in question to upholstered material involves, or was generally believed to involve, practical difficulties which the Appellant has been the first to overcome by some ingenuity of his own. I cannot find that the evidence called by the Appellant discloses the existence and solution of any problem at all.

That decision however was not concerned with evidence of the patentee as to how he arrived at his invention. Their Lordships took the view that on the facts the patent could only be upheld if the patentee could show by his own or other evidence that there was a problem which awaited

<sup>34</sup> (1951) 69 R.P.C. 63.

<sup>35</sup> (1951) 69 R.P.C., at p. 70.

<sup>36</sup> (1980) 144 C.L.R. 253.

<sup>37</sup> (1955) 72 R.P.C. 39.

<sup>38</sup> (1955) 72 R.P.C., at p. 45.

solution and that his invention solved that problem. The case does not assist either party in the present appeal.

*Surface Silos Ltd. v. Beal*<sup>39</sup> was relied on by the appellant. In that case Pearce L.J. speaking for the Court of Appeal said:<sup>40</sup>

Witnesses were surprised that such a construction should work and their surprise is an indication that the construction was not obvious. Whether there was in the mind of the inventor of the construction any knowledge of the reasons for its efficiency is irrelevant. For the test is objective. Whether by chance or skill, he has hit upon a method of making a light movable silo that works.

That observation is a useful reminder that chance or luck, as much as long experiment, may produce an invention.

The same is true of *Dow Corning Corporation's Application*<sup>41</sup> which emphasizes the limited usefulness of what the inventor did or had in mind at the time of making his invention. Graham J. there said:<sup>42</sup>

Secondly, the reference to the subsequent paper of the inventor as showing his state of mind when he made his alleged invention is obviously one which should only be made with very great care. The fact that the inventor himself may not have found difficulty in arriving at his invention is irrelevant, since it completely begs the question: Was an invention in the legal sense, that is, regarding the matter objectively, made by him, having regard to the existing state of knowledge? An inventor may well arrive at his invention by a flash of genius which causes him no difficulty or concentrated thought at all, but the invention may still be a most brilliant one which would never have occurred to the notional skilled man in the art at all or only after prolonged investigation and the concentrated exercise of his, perhaps lesser, inventive faculty. In such a case, though it is in a sense obvious to the inventor, nevertheless the invention is undoubtedly worthy of patent protection. Of course, this does not mean to say that it is never relevant to consider statements by the inventor as to how he arrived at his invention, because it is possible that he may show by such statements that the notional skilled worker would equally have found the invention obvious.

It is, however, undoubtedly the law that the test of obviousness is objective and not subjective and as stated recently by Sachs, L.J. in *Technograph Printed Circuits Ltd. v. Mills & Rockley (Electronics) Ltd.*:<sup>43</sup> "The question is a practical one to be answered objectively without enquiring into the particular mind of the inventor and it has always been held to be in essence a jury question as indeed was once more stated in the last mentioned judgment, *Allmanna Svenska Elektriska v. Burntisland Shipbuilding Co.*

<sup>39</sup> [1960] R.P.C. 154.

<sup>40</sup> [1960] R.P.C., at p. 161.

<sup>41</sup> [1969] R.P.C. 544.

<sup>42</sup> [1969] R.P.C., at p. 560.

<sup>43</sup> [1969] R.P.C. 395, at p. 407.

Ltd.<sup>44</sup>

In *Woven Plastic Products Ltd. v. British Ropes Ltd.*,<sup>45</sup> Edmund Davies L.J. said:

"I would add a postscript. The inventor of **dandycord** did not give evidence. We were told that he was prevented by illness from doing so, but there is nothing to indicate that any adjournment of the trial was sought on that account. Be that as it may, had he been called his evidence might well have proved decisive, for there is ample authority (noted in *Terrell* at paragraph 322) for saying that, in coming to a conclusion as to whether or not a claim contains a real inventive step over what was previously known" [sic] "or used, the court usually attaches considerable weight to the evidence of the inventor himself. Had the inventor of **dandycord** been called to testify, it might have emerged that it was only after trial and error and repeated experiments that he hit upon the final satisfactory product."

The mode of expression makes it clear that this observation was obiter. The paragraph in *Terrell* on the Law of Patents, 11th ed. (1965) to which his Lordship referred (par. 322) refers only to *Lightning Fastener Co. Ltd. v. Colonial Fastener Co. Ltd.*<sup>46</sup> and *Howaldt Ltd. v. Condrup Ltd.*<sup>47</sup> Cases to the contrary effect are not referred to. Neither of the other members of the Court of Appeal adverted to the point. Contrast the view in *Blanco-White*, *Patents for Inventions*, 3rd ed. (1962), p. 144, where he refers to cases which say that such evidence is "not of great weight", a comment repeated in the 4th ed. (1974), par. 4-228.

In the present case it was admitted by the respondent that the test of obviousness was an objective one, but it was argued that evidence of a subjective character was admissible. That is no doubt true in some cases because expert witnesses are often properly asked whether they found a particular invention "surprising" to them. That however does not answer the question whether evidence of the steps which the patentee took is relevant and therefore admissible. Evidence of what was in the patentee's mind may be admissible as evidence of the state of the art, but could seldom be otherwise admissible. Evidence of what he did by way of experiment may be another matter. It might show that the experiments devised for the purpose were part of an inventive step. Alternatively it might show that the experiments were of a routine character which the uninventive worker in the field would try as a matter of course. The latter could be relevant though not decisive in every case. It may be that the perception of the true

<sup>44</sup> (1952) 69 R.P.C. 63, at p. 70.

<sup>45</sup> [1970] F.S.R. 47, at p. 58.

<sup>46</sup> (1934) 51 R.P.C. 349.

<sup>47</sup> (1936) 54 R.P.C. 121.

nature of the problem was the inventive step which, once taken, revealed that straightforward experiments will provide the solution. It will always be necessary to distinguish between experiments leading to an invention and subsequent experiments for checking and testing the product or process the subject of the invention. The latter would not be material to obviousness but might be material to the question of utility.

The remaining cases referred to in argument dealt with the question of discovery of documents concerning and recording experiments performed by the patentee in the course of making the invention. *American Cyanamid Co. v. Ethicon Ltd.*<sup>48</sup> appears to be the first reported case in which this question arose. It concerned a patent for a process for making a synthetic surgical suture. An application was made for very extensive further discovery which included three categories of documents, i.e. — (1) the plaintiff's internal and other documents showing the history and development of the relevant fibre including all scientific notebooks, memoranda and reports and all documents relating to commercial and administrative development of the product the subject of the patent; (2) documents relating to the standard experimental procedures used by the plaintiff and its related companies in the relevant fields prior to and subsequent to the date of filing the complete specification; and (3) documents relating to experimental work on and applications for plaintiff's United States patents in the absorbable sutures-polymer field subsequent to the date of the filing of the United States counterpart of the patent in suit. Included in those paragraphs are many matters which could not be relevant to obviousness but there were other issues in the case. Graham J. ordered discovery relating to experimental and development work and to the various procedures used either in experiments or commercial production. From that decision there was both an appeal and a cross appeal. The Court of Appeal varied the order made by Graham J. and held that the defendants were entitled to discovery of the following categories of documents — (a) any document relating to the processes used in the manufacture of the commercial suture, excluding documents relating only to experimental and development work leading to the adoption of those processes; (b) all documents relating to the invention including research and development down to the date of publication of the United Kingdom patent; and, (c) all documents relating to the procedures used in certain of the examples set out in the specification prior to the principal experiments,

<sup>48</sup> [1978] R.P.C. 667.

but held that to require discovery relating to all the experiments and research work leading to certain later patents would be oppressive and would occasion unreasonable and unnecessary delay and expense. In dealing with this aspect of the case, Buckley L.J. said:<sup>49</sup>

But I think that the defendants are entitled to have discovery of any documents relating to the processes used in the manufacture of Dexon, but it does not seem to me that the defendants have any need to know anything about the research and experimental work which has resulted in any of these processes being used.

The defendants, in their notice of motion and supporting evidence have in my view attempted to cast their net far too wide.

His Lordship then said:<sup>50</sup>

It seems to me, with deference to the learned judge, that there is no reason why the defendants should have discovery with regard to a large amount of experimental and development work underlying the various procedures, and leading to the use of the various procedures, that were in fact used in the experiments, or are in fact used in the production of Dexon; but I do think that the defendants are entitled to discovery of any documents relating to the processes used in the manufacture of Dexon, excluding documents relating only to experimental and development work leading to the adoption of those processes.

He concluded on this question that he would order discovery of one identified document and he said:<sup>51</sup>

Secondly, I would order discovery of all documents relating to the invention of the patent in suit, including research and development work down to 21st September 1966, which is the date of the publication in the United Kingdom of the patent in suit. Discovery on those lines has so far been made, but only down to a date in October of 1964, which was the date of the application in the United Kingdom. I think that that discovery should be continued down to the date of publication of the patent.

Orr L.J. agreed with Buckley L.J. and Goff L.J. also agreed but added:<sup>52</sup>

It, therefore, seems to me that it is essential that the defendants should have full discovery of the experimental and research work in respect of the invention in the patent, down to the date which my Lord has suggested, namely, the date when the specification was published, in September 1966.

<sup>49</sup> [1978] R.P.C., at p. 677.

<sup>50</sup> [1978] R.P.C., at p. 678.

<sup>51</sup> [1978] R.P.C., at p. 679.

<sup>52</sup> [1978] R.P.C., at p. 680.

Their Lordships gave no reason for extending the period from the priority date to the date of publication. However utility was in issue as well as obviousness and it may be that experiments conducted up to the date of publication could be relevant to the issue of utility, as to which however I do not need to say anything. I am unable to see that discovery of documents in respect to the period from the priority date to the date of publication could be relevant to the issue of obviousness. That must be judged at the priority date. In the present case Rath J. took the view that discovery should be confined to research and development and experiments before the priority date and no cross appeal was lodged against that order. I respectfully agree that if discovery relating to experiments is to be made it should not relate to a period later than the priority date.

There is in the judgments of the Court of Appeal no discussion of the cases in which it has been held that the manner in which a patentee arrived at his invention is irrelevant to the issue of obviousness.

In *Halcon International Inc. v. Shell Transport and Trading Co. Ltd.*<sup>53</sup> Whitford J. heard an application for further discovery with respect to documents relating to research by the patentee including reports, notebooks and the like. After discussing some of the authorities, his Lordship said:<sup>54</sup>

I am bound to say that evidence as to the way in which an inventor arrives at the invention may, I think, be of considerable assistance to the court in reaching a determination as to whether what is alleged to be inventive was really little more than routine work; it does appear to me that a sight of the documents in paragraph 4 (a), if it were given to the court, would be likely to be of assistance in determining the question as to whether, in proceeding from the catalysts which they originally found effective to these other catalysts, the plaintiffs were doing anything more than what might be said to be routine experimentation.

If such evidence is admissible it seems unlikely that it could be used only for the purpose suggested.

<sup>53</sup> [1979] R.P.C. 459.

<sup>54</sup> [1979] R.P.C., at pp. 464-465.



There appear to be no Australian authorities directly in point. We were referred to an unreported decision of Barwick C.J., *Pulbrook Bros. Pty. Ltd. v. C. W. Donney Pty. Ltd.*<sup>55</sup> on an application for answers to interrogatories in respect of novelty. It throws no light on the present case. We were also referred to *Temmler v. Knoll Laboratories (Australia) Pty. Ltd.*,<sup>56</sup> where Windeyer J. dealt with an application for discovery in respect of applications for patents for the same invention in other countries. His Honour is reported to have said:

It is, however, of course essential to the obtaining of an order for discovery and for inspection that the documents in respect of which it is sought must be related to the matter in question in the proceedings. The rules, both O. 32, r. 18, and O. 32, r. 8, expressly show that.

It may be that documents can be said to relate to a matter in question in the proceeding if they may fairly lead to a train of inquiry which would help to establish the case of the parties seeking discovery. That has been held more than once in the United Kingdom and particularly in *Compania Uruguaya de Fomento Industrial S.A., Biro Swan Ltd. v. Mentmore Manufacturing Co. Ltd.*<sup>57</sup>

But the documents to be discoverable must be related in some way to some question in issue. What matters are in question in the proceedings must depend upon the pleadings, including of course the particulars of objection.

Here the defence is that there was no patentable invention because of lack of subject matter by reason of common general knowledge and lack of novelty because of prior publication. For the resolution of these questions in regard to Australia, I am unable to see that it is relevant to know what applications for protection similar to that given by our law to patentees were made in other countries. Still less, I think, can the fate of such applications, where made, be relevant. The law in those places may be different from our law and the state of common general knowledge and of publication at relevant dates may be very different from those matters here.

It is important, particularly in relation to convention patents, to bear in mind that the common general knowledge which is material to the question of obviousness is common general knowledge in Australia and not the common general knowledge in the country of origin. No doubt occasions may occur where there may be no difference or no significant difference in the common general knowledge of the ordinary skilled worker in one country from that of his counterpart in another. However that cannot be assumed and there is certainly no presumption that it is so. What must be proved is common general knowledge in Australia and the inventiveness or otherwise of the alleged invention must be judged against that background.

<sup>55</sup> 27 January 1977.

<sup>56</sup> (1969) 43 A.L.J.R. 363n.

<sup>57</sup> (1955) 72 R.P.C. 287, at p. 302.

Care must be taken to judge the foreign experiments and developments not against their own background but against the proved background of common general knowledge in Australia.

In the course of argument some reliance was placed upon what I said in *Graham Hart (1971) Pty. Ltd. v. S. W. Hart & Co. Pty. Ltd.*<sup>58</sup> about what would have been obvious to the American worker there referred to. It is however unwise to draw too much from that observation without paying close attention to the somewhat unusual facts. The basis on which that case was argued in this Court was that the Australian patent was attacked as being obvious in the light of one prior United States specification and upon no other basis. The Court dealt with the matter on the footing of the observations of Williams J. in *H.P.M. Industries Pty. Ltd. v. Gerard Industries Ltd.*,<sup>59</sup> since disapproved in the Minnesota Case.<sup>60</sup> The Australian patent embodied a feature not embodied in the earlier United States patent but it was argued that the new feature was obvious because of the existence of that patent. The point which was made about the subsequent American application for the same improvement as had been patented in Australia was that it was clear that the holder of the prior United States patent had knowledge of its patent, but that it was not until some three years after its date that a company in the same American group applied for a United States patent for the same development as was the subject of the Australian patent under attack. Thus the comparison was not between common general knowledge in the United States and common general knowledge in Australia. The question was what one particular earlier patent would have revealed to a worker in the field, whether in Australia or in the United States. The case throws no light upon the comparison of common general knowledge, as the term is now to be understood in the light of the decision in the Minnesota Case, in Australia with the same kind of knowledge in another country. Where that question arises the state of common general knowledge in each place must be proved by evidence.

In view of the area of conflict in the authorities and the absence of examination of the divergent expressions of opinion, it is necessary to consider the issue in this appeal as a matter of principle. In the United Kingdom cases where evidence has been given or tendered of the research and experiments of the patentee the basis of admitting such evidence appears to have

<sup>58</sup> (1978) 141 C.L.R. 305.

<sup>59</sup> (1957) 98 C.L.R. 424.

<sup>60</sup> (1980) 144 C.L.R. 253.

changed. In *Riekmann v. Thierry*<sup>61</sup> it was expressed by saying that where subject matter was put in issue the patentee could give evidence in support of inventiveness by showing that he had arrived at his invention only after research and experiments. In more recent authorities discovery has been ordered to enable those attacking the patent to search for material which may suggest that all that the inventor actually did was to take a series of routine steps or make a series of routine experiments. It is still correct to say that a valid patent may be obtained for something stumbled upon by accident, remembered from a dream or imported from abroad, if it otherwise satisfies the requirements of the legislation. What is important is that the patent itself should involve an inventive step, whether or not it was consciously taken by the patentee and whether or not it appeared obvious to the patentee himself. The test is whether the hypothetical addressee faced with the same problem would have taken as a matter of routine whatever steps might have led from the prior art to the invention, whether they be the steps of the inventor or not.

The difference of opinion in the authorities appears only in the cases which deal with evidence of what the inventor did in arriving at his invention. Where obviousness is in issue admissibility must depend on relevance to that issue. Such evidence has in some cases been discussed as likely to be helpful, sometimes to the inventor and sometimes to his opponent. Notwithstanding that it has been suggested that such evidence may show that all that the inventor did was to take a series of routine steps, I find it difficult to see how resort by those attacking a patent to the research and experiments of the inventor can often be helpful on the issue of obviousness. If those equipped with the common general knowledge of the relevant art are unable to see from the specification and the claims how the invention was arrived at, that would tend to show that it was not obvious.

Such a mode of attack on a patent might well prove to be an expanded form of the illegitimate use of hindsight. Courts have had continually to remind themselves and those who seek to establish invalidity of patents of the limits on the usefulness of hindsight and ex post facto analysis. It is not necessary to repeat here the many authorities which have referred to this matter.

<sup>61</sup> (1896) 14 R.P.C. 105.

There is however another aspect of the question and that is what use the inventor himself may make of his experiments and research in support of his patent. Evidence as to the difficulties to be overcome in effecting improvements or advances in the particular field in question has long been regarded as admissible as part of the background of common general knowledge. Evidence is admissible of previous workers having failed to solve the relevant problem or having produced solutions which turn out to be failures, whether by reference to prior specifications which have failed to work or by other evidence.

The fact that extensive research and experiment was carried out by a person claiming to be an inventor will not of itself prove that an invention had been made. Invention will depend on the nature of the result ultimately claimed, whether product or process, viewed against the background of common general knowledge.

If evidence of the failure of other attempts to solve a well-known problem, i.e. to satisfy a "long-felt want", is admissible in support of the inventive nature of a successful solution to such a problem, as it undoubtedly is, it is difficult to see why the patentee's own lack of success in earlier attempts would not also be admissible for the same purpose. It may well be that the use of such evidence by the patentee would involve some risk because it would no doubt be used to support an argument that the last and successful step was by then obvious, though such an argument would require careful examination to see whether or not it was an illegitimate use of hindsight.

However not all inventions are to be classified as fulfilling a long-felt want. Those which reveal an "unfelt want" are as likely, or sometimes more likely, to involve an inventive step. In such a case experiments and research in perfecting the novel product or process would not be in the same category for it would throw no light on the quality of what was claimed by the patentee to be the inventive step. Such classification of inventions does not comprise a true dichotomy and some patents may have in part each of those qualities.

In the result therefore I have concluded that evidence of research and experiments (if any) of a patentee leading up to his claimed invention is generally admissible though not always likely to be helpful. The fact that in a particular case there may not have been any research or

experiment involved in the making of an invention does not require the conclusion that evidence relating to research and experiments, where they took place, will not be admissible.

So far as discovery of documents is concerned the test is wider than the test of admissibility as the statement of Windeyer J. in *Temmler's Case*, which I have quoted above, demonstrates. It may be that in many cases documents recording such research and experiment could properly be said to relate solely to the inventor's own case but that ground for refusing discovery is no longer available in New South Wales, having been abolished in 1976 by the insertion of r. 6a in Pt 23 of the Supreme Court Rules 1970 (N.S.W.).

The cases to which I have referred appear to show that some discovery in respect of the work done by a patentee in arriving at his invention has been given as a matter of course and that the disputes have been as to the extent of discovery. Since evidence of such work may in some cases be relevant to the issue of obviousness it must follow that discovery should generally be given, even if only on the basis that the documents discovered may suggest a line of enquiry worth investigation.

For those reasons discovery to the extent ordered by Rath J. should be given. The appeal should be dismissed.

**WILSON J:**

I would dismiss the appeal, for the reasons given by Aickin J.