PATENTS ACT 1977

Miss Durow
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IN THE MATTER OF an application under
Section 27 by Guardall Limited to amend
Patent No 2199973 in the name of Guardall Limited
and opposition thereto by Scantronic Limited

DECISION

Patent No 2199973, which relates to security sensors, has a filing and priority date of 15 January 1987 and was granted on 26 September 1990 to Racal-Guardall (Scotland) Limited (now called Guardall Limited). On 19 April 1994 Guardall Limited ("the applicants") applied to amend the patent, the stated reason for the amendment being to distinguish it from a prior art sensor identified in the statement of case as the "Double Tech D-100" sensor manufactured by Napco Security Systems Inc. Following preliminary consideration by the Patent Office the proposed amendment was advertised in the Official Journal (Patents). On 8 November 1994 Scantronic Limited ("the opponents") filed an opposition to the application to amend on the grounds that the amendments should not be allowed in the exercise of discretion and that the amendments would still leave the patent invalid.

Evidence in chief on behalf of the opponents comprised a statutory declaration by Mr John Hallett, employed in an unspecified capacity by GEC/Marconi Defence Systems Limited and stating that he had been involved in the design of microwave equipment for 22 years, accompanied by two exhibits. Evidence on behalf of the applicants comprised a statutory declaration by Mr Jonathan Addinall, Principal Engineer for the applicants, accompanied by five exhibits. Evidence in reply from the opponents comprised a statutory declaration by Mr Ian Aldred, employed in an unspecified capacity by the opponents and stating that he had been involved in the design of microwave equipment for 12 years, accompanied by four exhibits. The matter came before me at a hearing on 27 March 1996, when the applicants were represented by Mr R W Obee, patent agent for the Racal Group, to

which the applicants belong, and the opponents were represented by Mr A B Crawford of A A Thornton and Co, their patent agents. There was some dispute at the hearing as to the admissibility of some of Mr Aldred's evidence as it related to experiments he had carried out on a Napco sensor called the XT535, similar but not identical to the D-100. Having considered the arguments from both sides I decided formally to admit this evidence, observing that I would consider in due course, after hearing submissions on the substantive matters, what weight I should attach to it.

Section 27 is as follows:

> "27(1) Subject to the following provisions of this section and to section 76 below, the comptroller may, on an application made by the proprietor of a patent, allow the patent to be amended subject to such conditions, if any, as he thinks fit.
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> (2) No such amendment shall be allowed under this section where there are pending before the court or the comptroller proceedings in which the validity of the patent may be put in issue.
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> (3) Any amendment of a specification of a patent under this section shall have effect and be deemed always to have had effect from the grant of the patent.
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> (4) ....
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> (5) A person may give notice to the comptroller of his opposition to an application under this section by the proprietor of a patent, and if he does so the comptroller shall notify the proprietor and consider the opposition in deciding whether to grant the application."

It is accepted that the effect of the word "may" in subsection (1) is that the Comptroller's powers to allow amendment are discretionary, and that factors which will determine whether in any case such discretion should be exercised so as to allow amendment include the conduct

of the applicants, for example in relation to any delay in applying for the amendment after its desirability became known to them, and whether the amendment requested succeeds in curing the invalidity which prompted it.

The patent in suit relates to a dual-technology intruder sensor which indicates intrusion if it is detected by both infra-red and micro waves, reducing the possibility of false alarms. The specification refers to prior art sensors in which the independent sensors are mounted one above the other or side by side, requiring a larger overall dimension than that of either individual sensor, and states the technical problem to be the provision of a dual-technology sensor which does not require a large housing. The statement of invention and claim 1 define the invention as follows. For convenience the proposed amendments are shown, using underlining for proposed insertions and square brackets for proposed deletions. These represent all of the requested amendments.

> "1. A security sensor comprising a housing containing a passive infra-red detector and a microwave detector, said passive infra-red detector comprising at least one infra-red sensitive element, a window in said housing, an optical arrangement for directing infra-red radiation received through the window onto said element, and a processing circuit connected to the output of said element, said microwave detector comprising a radome in said housing, means for transmitting microwaves through said radome and receiving microwaves reflected back from a target through said radome, and a processing circuit connected to said receiver, ***[characterised in that]*** a panel ***[is] being*** provided in said housing, which panel is shaped to define at least one Fresnel lens segment, ***characterised in that said infra-red sensitive element, said transmitting and receiving means and said panel are so arranged that*** the panel ***[serving] serves*** as ***a common*** said optical arrangement, ***[and said]*** window ***[of the infra-red detector,]*** and ***[as the]*** radome ***[of said microwave detector].***"

It is stated that the use of a single panel as the window, radome and optical arrangement achieves considerable space saving, and a further advantage is stated to be that the sensor is relatively difficult to mask, *eg* by placement of a metal plate over the window. Known

independent anti-masking devices may be used with the invention, but unlike in the prior art only one such device is needed, and this may be a conventional microwave anti-masking device.

In the main embodiment, a housing contains a passive infra-red (PIR) sensor mounted on a circuit board between a microwave transmitting horn antenna and a microwave receiving horn antenna, all facing a common high-density polyethylene front panel situated in the housing and which defines a series of Fresnel lens segments. These segments focus infra-red radiation received, and the panel also acts as a radome to protect the microwave horn antennae. The circuit board is mounted in the same plane as the openings of the horns so that its field of view is not restricted. The housing also contains processing circuitry. The final paragraph of the body of the specification states that a common flared horn serving for both transmission and reception may alternatively be provided, with the infra-red sensor placed to one side, or just above or below the horn, or inset into its wall. As well as an omnibus claim there are five other claims, all appended to claim 1 and directed to particular features.

The following facts appear not to be in dispute. In March 1992 the applicants wrote to the opponents alleging that one of their products infringed the patent in suit. In subsequent correspondence, most of which I have not been shown, the opponents advised the applicants of the Napco D-100 sensor, apparently alleging that the claimed invention was unpatentable in the light of this prior device. The actual Napco sensor was shown to the applicants' patent agents on 1 May 1992, and in a letter dated 19 May 1992 the opponents' agents stated to the other side that the device had been offered for sale in October 1986 in the journal "Security Dealer". A copy of the advertisement was also sent. It is not clear from the pleadings or evidence exactly when the applicants first became aware of the Napco D-100 sensor, but in their counterstatement under Rule 40(4) they state that the earliest publication of it known to them before it was raised by the opponents was in a workbench review in the journal "Security Distributing and Marketing" dated August 1987 which, they observe, was after the priority date of the patent in suit, and therefore irrelevant to its validity. It appears to be an implication of this that the applicants first became aware of the Napco D-100 some time between August 1987 and May 1992, and perhaps much closer to the former date than to the

latter, but it does not seem to be in dispute that until the latter date, when the opponents drew their attention to the advertisement of October 1986, which predated the priority date of the patent, the applicants had no reason to believe that the Napco D-100 had been advertised or made available to the public before their priority date, and no reason therefore to consider that it might pose a threat to the validity of the patent. It appears that, prompted by the opponents' allegation of unpatentability, the applicants realised only at this stage that it was possible to construe claim 1 of the patent in such a way that it was anticipated by the Napco sensor.

On 7 July 1992 the applicants wrote to the opponents specifying amendments for which they "might be inclined to apply to put the matter beyond doubt", but nevertheless offering a licence "for the purpose of avoiding any adversarial proceedings between the parties, including any pursuant to Section 27(5) of the Act". The form of amendment attached to this letter differed in what appear to be only minor and insignificant respects from that now applied for. The applicants' counterstatement says that this was their last communication to the opponents, and it therefore appears to be correct that, as stated by Mr Crawford at the hearing, the matter rested there, with the offer of a licence, although declined by the opponents, still in place.

On 17 August 1992 the applicants made an application to the European Patent Office to amend European Patent Application No 87311159, which appears to correspond exactly to the patent in suit but which does not designate the United Kingdom. The form of amendment requested was identical to that attached to their letter of 7 July, and was therefore in all material respects the same as that now proposed before me in relation to the United Kingdom patent. Some 20 months later, on 19 April 1994, the present application to amend the United Kingdom patent was filed. I note that the applicants did not, when they made the present application, inform the Patent Office of their earlier request to amend the corresponding European application, and that the Office was only informed of that request by the opponents in their statement in the opposition proceedings. The applicants admitted in their counterstatement that they had made the earlier request, but no evidence was filed by way of explanation either of their failure to inform the Office of the earlier request when the section 27 application was originally launched or of why no attempt was made to amend the United Kingdom patent at the time that the proposal to amend the European application was made. As to the latter, Mr Obee did say at

the hearing that the applicants had been undergoing significant corporate reorganisation at the relevant time, as a result of which the commercial environment was not given priority, but I note that no evidence was submitted either to substantiate the nature, timing or significance of the reorganisation, or to explain why, nevertheless, sufficient priority was given to amend the European application but ***not*** the patent in suit.

Although, both in the pleadings and at the hearing, the question of discretion was considered before that of the effectiveness of the proposed amendment to avoid the prior art, it is more convenient for the purposes of this decision to approach these issues in the reverse order.

I therefore turn first to the nature of the amendment and of the prior art which it seeks to avoid. Like the invention in suit, the Napco D-100 sensor is a dual-technology sensor which indicates intrusion if the intrusion is detected by both infra-red and microwaves. In addition to the October 1986 advertisement in "Security Dealer" and the August 1987 workbench review in "Security Distributing and Marketing", evidence relating to this sensor comprised:

a series of photographs in respect of which, although it was not suggested that they were taken before the priority date of the patent in suit, it did not seem to be in dispute that they represented the D-100 sensor as it was available before that date;

a copy of Napco's operating and installation instructions, apparently dated "12/87" but also marked "© Napco 1986", and with an addendum apparently dated "4/90" and marked "© Napco 1989";

and some calculations by Mr Addinall concerning the number and beamwidths of microwave lobes produced by the D-100.

Mr Addinall's statutory declaration described experiments he had carried out on the D-100 to determine its intruder detection range at various angles with neither, both and each in turn of the top and bottom halves of the front panel masked against microwaves. As I have already mentioned, Mr Aldred's statutory declaration described experiments he in turn had carried out

on a similar but somewhat different Napco sensor, the XT535. Mr Crawford explained that the opponents had been unsuccessful in attempts to purchase a D-100 and had, in his words, "done their best in the circumstances, not having access to the identical unit to that produced by the patentees". However, when I asked him whether it would have been possible for the opponents simply to have requested from the other side access to the same unit that they had used, he conceded that it would have been, but that to have done so would have required the opponents to carry out their own experiments "in the glare of (the applicants') eyes", something they were clearly reluctant to do despite the fact that the applicants had offered the opponents an opportunity to witness their experiments on the D-100. What were allegedly examples of both the D-100 and the XT535 were produced at the hearing, but since neither of these were in fact submitted in evidence as sworn exhibits, and I therefore have no formal confirmation either that they were the samples experimented on by Mr Addinall and Mr Aldred respectively or regarding their dates relative to the priority date of the patent in suit, I can regard them as no more than teaching aids.

The D-100 has a PIR sensor occupying a small area in the top half of the device (as attached to a wall, say) and a common microwave horn antenna for both transmission and reception in the bottom half. A common front panel lies in front of both halves and consists of what the advertising material describes as a "flip-over lens". Its upper and lower halves each comprise a Fresnel lens of different optical characteristics so as to provide two alternative patterns of angular coverage of the infra-red sensor dependent upon which half is located in front of the PIR sensor. Although there appears to be no explicit reference in the literature associated with the D-100 to the effect that the front panel also serves as a radome for the microwave sensor, it is not disputed that this is the case, since the panel clearly provides the protection for the microwave device implicit in the term "radome". In their statement of case the applicants comment that, since the invertable front panel of the D-100 serves as the optical arrangement (*viz* lens) and window of the PIR detector and as the radome of the microwave detector, it arguably anticipates claim 1 of the patent in unamended form, this being the reason why they seek to amend the claim.

The issue of the effectiveness of the proposed amendment to avoid anticipation by the D-100 hinges on the construction of the claim in amended form. Mr Obee argued that the claim should be given a purposive construction, and that since the purpose is to detect intruders the radiation that is relevant is that used for this purpose. He argued that as proposed to be amended claim 1 is novel over the Napco D-100 sensor in that it requires that the front panel serves as a ***common*** microwave radome and infra-red Fresnel lens window, and that this means there must be substantial coincidence between the radome and Fresnel lens window. This permits greater compactness and prevents a malefactor masking the infra-red sensor without being detected by a conventional microwave anti-masking device, as the description says. Mr Obee said that "common" should be construed purposively with regard to the masking. Mr Crawford, on the other hand, argued that "common" in the context merely indicates that a single integer, *viz* the panel, serves the three functions specified in the claim, *viz* those of optical arrangement, window and radome.

Mr Addinall's experiments with a Napco D-100 sensor, on behalf of the applicants, showed that the microwave radiation used for intruder detection is largely restricted to one half of the panel. There was some dispute between the parties regarding how large is "largely". For example, Mr Crawford and Mr Obee appeared to disagree regarding the degree to which environmental conditions in Mr Addinall's experiments approximated to those in practical use of the Napco sensor as regards microwaves bouncing off walls *etc* and flooding the area, but as will be seen this does not affect my conclusions. Mr Aldred's experiments, on behalf of the opponents, also purported to determine detection ranges of the Napco sensor, but I found these of very little assistance to me, especially since he used a model which differed from the D-100, for example in that it did not use a horn antenna.

Mr Obee pointed out the emphasis in the specification on the compactness of the invention, but Mr Crawford argued that it is not at all clear that the invention is in fact any smaller than the Napco D-100 sensor. For example, the main embodiment of the invention has two microwave horns whereas the D-100 has only one and a similar area devoted to the infra-red part. Mr Crawford also argued that if it was desired to make the Napco sensor more compact, it would have been obvious to move the infra-red sensor closer to the horn antenna, which

would increase the degree of overlap, but Mr Obee said this would entail sacrificing one of the two Fresnel lens patterns provided to permit alteration of angular coverage by inverting the panel, contrary to the teachings of the Napco sensor, so the invention claimed in the amended claim could not be regarded as obvious in relation to the D-100.

Mr Crawford argued that no evidence was provided regarding the anti-masking situation in the case of the Napco sensor, but that in any case the claim was not concerned with this. Power levels relevant to anti-masking are not necessarily the same as in the case of detection of intruders.

While I accept that, following Lord Diplock in *Catnic v Hill & Smith* [1982] RPC 183, the proper construction to be placed on a claim is a purposive one, in my view the natural construction of "common" in the claim as proposed to be amended is that advanced by Mr Crawford, which I consider meets the test of purposiveness. I can see no justification for importing into it any glosses derived from the embodiment as urged by Mr Obee. It is clear that the microwave and infra-red radiations used for intruder detection overlap substantially in the case of the embodiment and do so to a much smaller extent in the case of the Napco D-100 sensor, but the proposed revised claim does not make this distinction, and I do not consider that the teaching of the specification requires me to read the amended claim in such a way as to do so. Consequently I find that the proposed amendments to claim 1 fail to avoid anticipation by the Napco D-100 sensor as publicised before the priority date of the patent in suit, and for this reason I decline to allow the specification of the patent to be amended.

Since the embodiments described in the specification all appear to differ from the construction of the Napco D-100 sensor in the degree of overlap between the microwave and infra-red radiations and the relationship of the front panel to the two sensors, it seems possible that an alternative form of amendment could be devised which would succeed in avoiding anticipation by the D-100 while, for example, meeting the requirements of section 76. However, before deciding whether I should offer the applicants an opportunity to submit such alternative amendments it is necessary for me to consider their conduct, and in particular to decide whether, in the event that I had found that the amendments already proposed succeeded in

avoiding anticipation, I should have gone on to exercise my discretion under section 27(1) to allow the amendments.

Mr Crawford referred to several authorities on the question of discretion. In *Coal Industry's Patent* [1994] RPC 661 Jacob J said that it was wrong to enter into an exercise of discretion without evidence, even when, as in that case, the applicant was merely seeking to delete claims, which was a much more readily allowable form of amendment then reformulation of claims, as in the present case. A more comprehensive statement of the matters in respect of which such evidence needs to be filed is given in *Smith Kline & French v Evans Medical* [1989] FSR 561, where Aldous J specified principles to be followed in the exercise of discretion, *viz* (as summarised in the headnote):

> "(a) the onus to establish that amendment should be allowed was upon the patentee who was required to make a full disclosure of all relevant matters;
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> (b) amendment would be allowed provided the amendments were permitted under the Act and no circumstances arose which would lead the court to refuse the amendment;
>
> (c) it was in the public interest that amendment be sought promptly. If delay in such application had arisen the patentee had to show reasonable grounds for his delay if leave to amend were to be given;
>
> (d) a patentee who sought to obtain an unfair advantage from a patent which he knew or should have known required amendment, would not be allowed to amend;
>
> (e) in such applications, the court was concerned with the conduct of the patentee and not with the merit of the invention."

Mr Crawford drew attention in particular to a passage from *Smith Kline & French* in which Aldous J referred to Graham J's judgement in *Chevron Research Company's Patent* [1970] RPC 580, directing me to the fact that Graham J said that:

> "... a patentee seeking amendment bears the onus of establishing that the amendment is allowable and can only discharge that onus if he provides evidence to prove his case and, in doing so, places the whole story before the court."

In *Hsiung's Patent* [1992] RPC 497 Aldous J, having reiterated his views from *Smith Kline & French*, and noting the absence of evidence bearing on whether there was culpable delay and on whether the patentee had sought to obtain an unfair advantage, said he must therefore consider the evidence filed. On appeal to the Court of Appeal the principles specified in *Smith Kline & French* were supported and an attempt on behalf of the patentee to excuse an absence of evidence on the grounds that the Patent Office had not called for any was rejected. In an unreported Patent Office decision *NL Petroleum's Patent* (SRIS ref O/112/90) an attempt to amend in revocation proceedings was refused on grounds of an "undue delay" of 2½ years, following the *Smith Kline & French* principles.

In *Richardson-Vicks's Patent* [1995] RPC 568, attempts were being made to amend a United Kingdom patent and the corresponding EP(UK) patent, and since the attitude of the European Patent Office to amendment was less strict there was a possibility that an amendment would be refused to the United Kingdom patent but allowed to the EP(UK) patent, which takes precedence. In view of this, Jacob J said "I think nothing short of really blameworthy conduct by the patentee would suffice to bar amendment in the United Kingdom when that amendment is being sought in the EPO". However on the present case, the European application does not designate the United Kingdom, so it is quite independent of the United Kingdom patent.

Mr Crawford's contention was that the applicants had, by delaying their application to amend the patent in suit for approaching two years after they had become aware of the desirability of doing so in view of the Napco D-100 sensor, and for some 20 months after they had applied to amend the European application, and by failing to file any evidence to explain this delay,

had failed to meet the criteria set out in the authorities which would enable me to exercise discretion in their favour so as to allow the requested amendment (assuming I had found it acceptable in other respects).

Mr Obee replied that the non-notification of the amendment to the European patent application was not particularly relevant given that the statement of case gave the reasons for the amendment to the United Kingdom patent and the date the prior art came to the applicants' attention. Further, he contended, the delay was not culpable since the opponents had "notice of amendment" by the letter of 7 July 1992. He referred to *Rediffusion Simulation v. Link-Miles* [1993] FSR 369 in which amendment was allowed after a delay of four years, where Aldous J said:

> "... the plaintiff and defendant are the only two manufacturers in the United Kingdom, and the defendant has not suffered any detriment from the delay. The nature of the amendments is also relevant to the exercise of my discretion as in this case the amendments are in essence the deletion. It is, therefore, reasonable to assume that nobody has been damaged by the plaintiff's failure to formulate and seek amendment earlier."

In the present case, argued Mr Obee, the amendment merely rendered explicit that which was already implicit in the claim if it is construed having regard to section 125, so there was no surprise. Further the bizarre behaviour of the patentees in the *Coal Industry* case in changing their minds repeatedly regarding amendment required explanation. In *Hsiung's* case, the delay was six years, much longer than in the present case. Regarding the absence of evidence concerning the reason for the delay, Mr Obee pointed out that the Patent Office did not make an issue of delay when examining the application, though when I pursued this with him he acknowledged that the applicants had not made the Office aware of the fact that an application had been made to amend the European application 20 months earlier. There is a parallel in this regard with *Hsiung*.

I am satisfied that the applicants have failed to satisfy the criteria set out in the authorities for the exercise of discretion to allow the amendment requested. The requirement to submit evidence to support a request for such exercise of discretion emerges clearly from the authorities, yet no persuasive evidence was filed in the present case. The applicants did not even volunteer of their own volition the fact that they had, 20 months prior to filing the present application, filed a substantially identical amendment in respect of the corresponding European application. This only emerged as an admission when the opponents pointed it out. Thus, right from the start of the present proceedings it appears that the applicants were failing to reveal all relevant information. Even had the applicants filed evidence to show that the corporate reorganisation mentioned by Mr Obee had in some way caused the 20 month delay, it is difficult to see how this would satisfactorily have explained the difference in priority assigned to the filing of the two amendments. In any event, no such evidence was filed, so the applicants failed to clear even this first hurdle.

It is clear, for example from *Smith Kline & French*, that, contrary to Mr Obee's contention, the onus in these proceedings lies with the applicants to show that I should exercise discretion to allow the amendments. The utmost good faith, with full disclosure of all relevant facts supported by evidence, is required of the applicants in these circumstances, and I am satisfied that these criteria have not been met. The fact that the delay of 20 months is somewhat less than the delays arising in the earlier cases considered does not alter this conclusion. It is only a little less than the 2½ years that was found to be sufficient in *NL Petroleum*. It is, however, the fact that I find the delay to have been both "undue" and unexplained by evidence, rather than its absolute length, that is decisive for me.

Mr Obee's attempt to persuade me that the opponents, whom he characterised as the only affected party, had not been compromised since they had been told as early as July 1992 of the possibility of amendment, would not have been sufficient to persuade me to override the main principles emerging from the authorities, since I believe that there is also a more general public interest in not leaving invalid claims uncorrected. In any case, I believe that the opponents themselves are likely to have been left in doubt regarding possible infringement proceedings

for some time after receiving the applicants' letter of 7 July 1992, given its tentative nature and the delay before the application to amend the United Kingdom patent in April 1994.

I therefore find that, on the facts of the case, I should not exercise the discretion available to me under section 27(1) to allow the amendments requested. Noting that I have already found that the requested amendments do not succeed in their stated objective of distinguishing claim 1 of the patent in suit from the prior art, but that amendments which did succeed in this objective might be possible on the face of the document, it follows that I do not consider it appropriate to allow the applicants an opportunity to recast their amendments in order to try to meet the objective, in view of my findings on the issue of discretion.

I therefore refuse to allow the specification of the patent in suit to be amended, either in the form currently requested or in any alternative form.

No request for costs in these proceedings was made on behalf of the opponents, and I therefore make no order as to costs.

Any appeal from this decision must be lodged within six weeks of the date of the decision.

Dated this 10 day of June 1996

Dr P FERDINANDO
Superintending Examiner, acting for the Comptroller

THE PATENT OFFICE