



PATENTS ACT 1977

BETWEEN

Fireworks Fire Protection Limited and Watermist
Limited

and

Mr Andrew James Cooke and Mr Kevin Alan Lesley
Musk

PROCEEDINGS

Claim by Fireworks under sections 8 and 39 of the Patents Act 1977 in respect of patent application GB 2479863 A and a claim by Mr Cooke under sections 13 and 37 of the Patents Act 1977 in respect of patent GB2458698B.

HEARING OFFICER

Phil Thorpe

DECISION

Introduction

1. This decision relates to a dispute between Mr Andrew James Cooke and Mr Kevin Alan Lesley Musk on one side and Fireworks Fire Protection Limited (Fireworks) and Watermist Limited on the other. It concerns a claim by Fireworks to entitlement to a pending patent application proceeding in the name of Mr Cooke and Mr Musk and a claim by Mr Cooke to entitlement to a patent granted to Watermist.
2. The patent application in issue is GB 1006737.9 entitled "An improved fire hose system". It was filed on 22nd April 2010 in the names of Mr Andrew Cooke and Mr Kevin Musk. Both Mr Cooke and Mr Musk are also named as co-inventors. The application was published on 2nd November 2011 as GB 2479863 A.

3. On 15th October 2010 Fireworks initiated proceedings under sections 8 and 39 of the Patents Act 1977. Fireworks claim that neither Mr Cooke nor Mr Musk is entitled to be named as either applicant or inventor. Rather the true inventors are Mr William Bridgman and Mr Derek Killaspy and that Fireworks or Watermist is entitled to the invention by virtue of section 39(1) irrespective of which of Mssrs Cooke, Musk, Bridgman and Killaspy are the true inventors.
4. In a preliminary decision¹ date 10th June 2011, I struck out all aspects of that claim save for the claim that Fireworks is entitled to the invention under of section 39(1) by virtue of its employment of Mr Cooke and Mr Musk.
5. The patent in issue is GB 2458698 B entitled "Firefighting Unit". It was filed on 28th March 2008 as GB 0805683.0. It was granted on 23rd February 2011 to Watermist, with Mr William Bridgman named as the sole inventor.
6. On 15th February 2011, Mr Cooke, initiated proceedings under sections 13 and 37 of the Patents Act 1977 claiming that he should be named as co-inventor and co-applicant.
7. Both matters came before me at a hearing on 26-27th September 2012, at which Mr Ian Silcock, instructed by IP21, appeared as Counsel for Watermist Ltd and Fireworks Fire Protection Ltd. Mr Tom Alkin, instructed by Novagraaf, appeared as Counsel for Mr Cooke and Mr Musk. I very much regret the length of time it has taken to issue this decision.

Preliminary Point

8. Immediately prior to the hearing, Watermist & Fireworks sought to admit further evidence. I heard arguments from both sides on the admissibility of this new evidence during the course of the hearing. I decided for reasons set out clearly in the transcript of the hearing not to admit it.

Background to the dispute

9. It is useful I believe to describe briefly the business of the parties involved and the general chronology of events which culminated in the contested patent and patent application.

Fireworks & Watermist

10. Fireworks was formed in the mid 1990's by Mr Derek Killaspy to install fire suppression equipment on behalf of a number of manufacturers in particular two companies Fogtec and Marioff. Fireworks customers are generally large companies like hotels, factories and government bodies. Fireworks also does some work as a main contractor. This involved Fireworks' staff surveying the prospective company to identify the components required which would then be bought in and installed.

¹ BL O/201/11

11. Fireworks did not manufacture or design its own products. Where non-standard parts were required to enable installation, for example a special bracket to support a pipe, then these were sourced outside including from a manufacturing company called Warren Services Ltd. The directors of Warren Services include Mr William Richard Bridgman and his father Mr Richard Bridgman.
12. In around 2005, Mr Killaspy sought to move Fireworks away from being a subcontractor to working more directly with end-users. He teamed up with Mr William Bridgman to form a new entity, Watermist Ltd to market and supply products which Warren would manufacture and Fireworks would install. Mr Derek Killaspy and Mr William Bridgman are both directors of Watermist. The intention was that any intellectual property in any new products would be held by Watermist.
13. Watermist's first patent, GB 2436538 was granted on 9th April 2008 with a filing date of 30th March 2006. It relates to a spray misting nozzle for fire protection equipment and names Mr William Bridgman as the sole inventor. The spray nozzle was apparently intended to solve the problem of how to generate fine misting sprays from a high pressure input. This particular patent is not in issue here.

Fireworks' employment of Mr Cooke and Mr Musk

14. Fireworks first employed Mr Andrew Cooke on contract in 1996. He became an employee in 1999. His initial role was site engineer with responsibility for installing fire suppression systems. All the evidence suggests that Mr Cooke was a valued and respected employee of Fireworks. He was promoted to Senior Supervisor in 2002.
15. Fireworks employed Mr Kevin Musk in June 2002, initially as a Workshop engineer and Storeman and then subsequently as a Site Engineer.
16. The relationship between Mr Cooke and Mr Killaspy, which had apparently been good, deteriorated from around 2009 onwards culminating in Mr Cooke's dismissal from Fireworks, together with that of Mr Musk in July 2010.
17. One factor that appears to have played a part in their dismissal was that Mr Cooke and Mr Musk had applied for a patent in their own name whilst employed by Fireworks. Fireworks is claiming that it should be entitled to that application.

Evidence and Witnesses

18. Witness statements have been provided by the following: Mr Andrew Cooke, Mr Kevin Musk, Ms Tracey Cooke of Novagraaf (IP Attorney for Mr Cooke and Mr Musk), Mr William Bridgman, Mr Derek Killaspy and Mr Jeffrey Morris and Mr William Jones both of IP21 (IP Attorneys for Watermist).
19. With the exception of Mr Morris, all the witnesses who provided witness statements were cross examined. I will say a little about how I assessed the

general credibility of each of these witnesses. I do so in the order that they gave evidence. I would note that the credibility of the witnesses was assessed shortly after the hearing with the evidence of their performance on the witness stand fresh in my mind.

Mr William Bridgman

20. Mr William Bridgman as the sole named inventor on GB 2458698 was always going to be one of the key witnesses. His written evidence is brief – it extends to just 4 paragraphs. He provides some general background on his role within Warren Services and Watermist. He states that it was him and not Mr Cooke who had the idea for the invention that is the subject of the patent although he gives little by way of background as to how he came up with the idea.
21. Under cross examination he appeared nervous, to some extent uncomfortable and also reluctant to engage. His recollection was also imprecise at times. For example he could not recall whether he had had sight of Mr Cooke's earlier witness statement before he drew up his statement. He was also uncertain when pressed on the guidance given to him by Watermist's legal representatives when drawing up his witness statement. Despite having the opportunity on a number of occasions he did not really add anything to his witness statement in terms of how he arrived at the idea in GB 2458698 B. Overall I had reservations about the reliability of his evidence, thin though it was, and so I feel I should consider it carefully.

Mr Derek Killaspy

22. Mr Killaspy submitted three detailed witness statements. Under cross examination he was I believe open and engaging, fully prepared to accept the limits of his knowledge. He answered the questions put to him honestly and in a straightforward manner and he was not afraid to reinforce his point where he thought it necessary. Overall I found him to be a generally reliable witness.

Mr William Jones

23. Mr William is a patent attorney with IP21. His written and oral evidence centred essentially on the prosecution history of GB 2458698 B. In particular he recalled a meeting where the filing of the application that led to GB 2458698 B was discussed. He responded under cross examination in a very business-like manner without really adding anything to what had already put forward in his witness statement. Overall Mr Jones was considered a reliable witness.

Ms Tracey Cooke

24. Ms Cooke is a patent attorney with Novagraaf who were instructing Counsel for Mr Cooke and Mr Musk. She is not personally related to Mr Andrew Cooke Her witness statement deals with publicly available details of the prosecution of GB 2458698 B and adds little to the matters before me. Her oral evidence however focussed almost entirely on the circumstances surrounding the submission as evidence of a letter from Mr Cooke to Mr Killaspy. This letter

relates to the dismissal of Mr Cooke. Initially only the first page of the letter was submitted as evidence however just before the hearing, and in response to a request from Fireworks' representatives, the remaining 4 pages of that letter were put forward. When first asked who had decided that only the first page should be put in, Ms Cooke said it was Mr Cooke. Mr Cooke was apparently concerned that the remaining 4 pages contained some personal information. On being recalled Ms Cooke however stated that in fact it was her and not Mr Cooke who had suggested that it was only necessary to put in the first page. I will discuss the relevance of the letter later however Ms Cooke's lack of clarity and consistency on this issue does lead me to question the reliability of her evidence and consequently the weight that I can give it.

Mr Andrew Cooke

25. Mr Cooke provided two witness statements. Mr Cooke was cross examined on these at some length by Mr Silcock. I found Mr Cooke responses at times evasive. His exchange with Mr Silcock as to whether a prototype of the invention covered by GB 2479863 A had actually been "delivered" to Fireworks premise bordered on farce at times with Mr Cooke determined to downplay any significance it might have. In doing so however he gave the impression that he was being particularly evasive and unhelpful. His response on whether that prototype had been covered up was also clearly inconsistent with his earlier witness statement. More generally he often sought to contest or query the question put to him rather than simply providing a straightforward response. His recollection of events also appeared at times selective. For example he was unable to recall clearly what he knew or had been told about the filing of the patent application GB 2458698 B. In contrast he was much surer about the events that led him to come up with the ideas covered by the patent and the application.
26. Mr Silcock also sought to bring into question Mr Cooke's credibility by suggesting he had deliberately sought to hide from these proceedings the four pages of his dismissal letter to Mr Killaspy because it undermined his case and was at odds with his witness statement. However as Mr Alkin pointed out, that letter was already known to Fireworks as it was initially sent by Mr Cooke to Mr Killaspy. In addition it became apparent that the advice that he had received from his legal team was that it was only necessary to put in the first page as that was sufficient to counter the particular point made by Mr Killaspy in his witness statement. Hence I do not believe that the circumstances surrounding this letter serve to undermine Mr Cooke as a witness.
27. Mr Silcock also questioned whether Mr Cooke had been open and honest in his business dealings alleging in particular that Mr Cooke had somehow sought to hide for financial reasons his involvement in certain enterprises from his estranged wife. When asked about this during his cross examination noted, Mr Cooke accepted that he had renamed the company to "protect him from his wife" but denied it was in anyway an attempt to avoid any financial obligation on his part. This denial was in my mind at odds with what Mr Cooke had said in the five page letter contesting his dismissal where he clearly suggests that the renaming of the companies was related to possible financial payments to his estranged wife.

28. I would add that the admission by Mr Cooke that he had in dealings with potential customers deliberately misstated his position in Fireworks was also harmful to his credibility. He accepted that he had sent out various quotes and communications to potential customers of Fireworks and had signed these as “Andrew Cooke Operations Director”. I asked him whether he had done this in the knowledge that he was not in fact the Operations Director and he confirmed that was the case. He explained that he had done it because he felt that customers, particularly larger customers did not want to receive correspondence from “some Herbert in the workshop” as he called it. Irrespective of whether that is the case it is clear on the basis of his own testimony that he sought to deceive customers. Even if the intent behind this was to benefit the company rather than to secure any personal gain, I do not think it is something I can ignore when considering his credibility as a witness.
29. On balance taking everything into account, I am of the view that Mr Cooke was not a particularly reliable or convincing witness and the weight that I should give to his evidence needs to reflect that.

Mr Kevin Musk

30. Mr Musk was clearly very nervous and continuously sat with his head down fidgeting with the papers in front of him. Mr Musk’s answers often lacked any real conviction and his recollection of events was at times disjointed and patchy. Overall I did not find Mr Musk to be a good witness; in fact he was of all the witnesses the least convincing. Consequently I feel I should treat his evidence with great caution.
31. For completeness I would note that Mr Silcock also raised the issue of Mr Musk requesting a copy of the application for GB 2458698 B from IP21. The suggestion from Mr Silcock was that Mr Musk had not been entirely honest in saying that the driver for the request was a particular installation problem he was trying to solve. Mr Silcock suggested the real reason for the request was to aid their own patent application. On this particular point I did find Mr Musk explanation to be plausible and hence this particular attack on Mr Musk’s credibility did not succeed.

The Law

32. These proceedings have been brought under a number of sections of the Patents Act 1977 and for completeness the relevant parts of these sections are set out below.
33. The law concerning the right to apply for and obtain a UK patent is set out in section 7 of the Act. Section 7 states:

7.-(1) Any person may make an application for a patent either alone or jointly with another.

(2) A patent for an invention may be granted –

(a) primarily to the inventor or joint inventors;

(b) in preference to the foregoing, to any person or persons who, by virtue of any enactment or rule of law, or any foreign law or treaty or international convention, or by virtue of an enforceable term of any agreement entered into with the inventor before the making of the invention, was or were at the time of the making of the invention entitled to the whole of the property in it (other than equitable interests) in the United Kingdom;

(c) in any event, to the successor or successors in title of any person or persons mentioned in paragraph (a) or (b) above or any person so mentioned and the successor or successors in title of another person so mentioned; and to no other person.

(3) In this Act “inventor” in relation to an invention means the actual deviser of the invention and “joint inventor” shall be construed accordingly.

(4) Except so far as the contrary is established, a person who makes an application for a patent shall be taken to be the person who is entitled under subsection (2) above to be granted a patent and two or more persons who make such an application jointly shall be taken to be the persons so entitled.

34. Section 37 of the Act deals with determination of the rights to a patent after grant. Section 37(1) states:

37(1) After a patent has been granted for an invention any person having or claiming a proprietary interest in or under the patent may refer to the comptroller the question –

(a) who is or are the true proprietor or proprietors of the patent,

(b) whether the patent should have been granted to the person or persons to whom it was granted, or

(c) whether any right in or under the patent should be transferred or granted to any other person or persons;

and the comptroller shall determine the question and make such order as he thinks fit to give effect to the determination.

35. Section 39 deals with right to employees' inventions with 39(1) stating:

39(1) Notwithstanding anything in any rule of law, an invention made by an employee shall, as between him and his employer, be taken to belong to his employer for the purposes of this Act and all other purposes if –

(a) it was made in the course of the normal duties of the employee or in the course of duties falling outside his normal duties, but specifically assigned to him, and the circumstances in either case were such that an invention might reasonably be expected to result from the carrying out of his duties

(b) the invention was made in the course of the duties of the employee and, at the time of making the invention, because of the nature of his duties and the particular responsibilities arising from the nature of his duties he had a special obligation to further the interests of the employer's undertaking.

36. The law on the entitlement was extensively considered by the House of Lords in *Yeda*². Lord Hoffman said in paragraphs 19- 21:

19. In my opinion, therefore, the first step in any dispute over entitlement must be to decide who was the inventor or inventors of the claimed invention. Only when that question has been decided can one consider whether someone else may be entitled under paragraphs (b) or (c)...

20 The inventor is defined in s.7(3) as “the actual deviser of the invention”. The word “actual” denotes a contrast with a deemed or pretended deviser of the invention; it means, as Laddie J. said in *University of Southampton's Applications* [2005] R.P.C. 11, [39], the natural person who “came up with the inventive concept.” It is not enough that someone contributed to the claims, because they may include non-patentable integers derived from prior art: see *Henry Brothers (Magherafelt) Ltd v Ministry of Defence* [1997] R.P.C. 693, 706; [1999] R.P.C. 442. As Laddie J. said in the *University of Southampton* case, the “contribution must be to the formulation of the inventive concept”. Deciding upon inventorship will therefore involve assessing the evidence adduced by the parties as to the nature of the inventive concept and who contributed to it. In some cases this may be quite complex because the inventive concept is a relationship of discontinuity between the claimed invention and the prior art. Inventors themselves will often not know exactly where it lies.

21 The effect of s.7(4) is that a person who seeks to be added as a joint inventor bears the burden of proving that he contributed to the inventive concept underlying the claimed invention and a person who seeks to be substituted as sole inventor bears the additional burden of proving that the inventor named in the patent did not contribute to the inventive concept. But that, in my opinion, is all. The statute is the code for determining entitlement and there is nothing in the statute which says that entitlement depends upon anything other than being the inventor. There is no justification, in a dispute over who was the inventor, to import questions of whether one claimant has some personal cause of action against the other.”

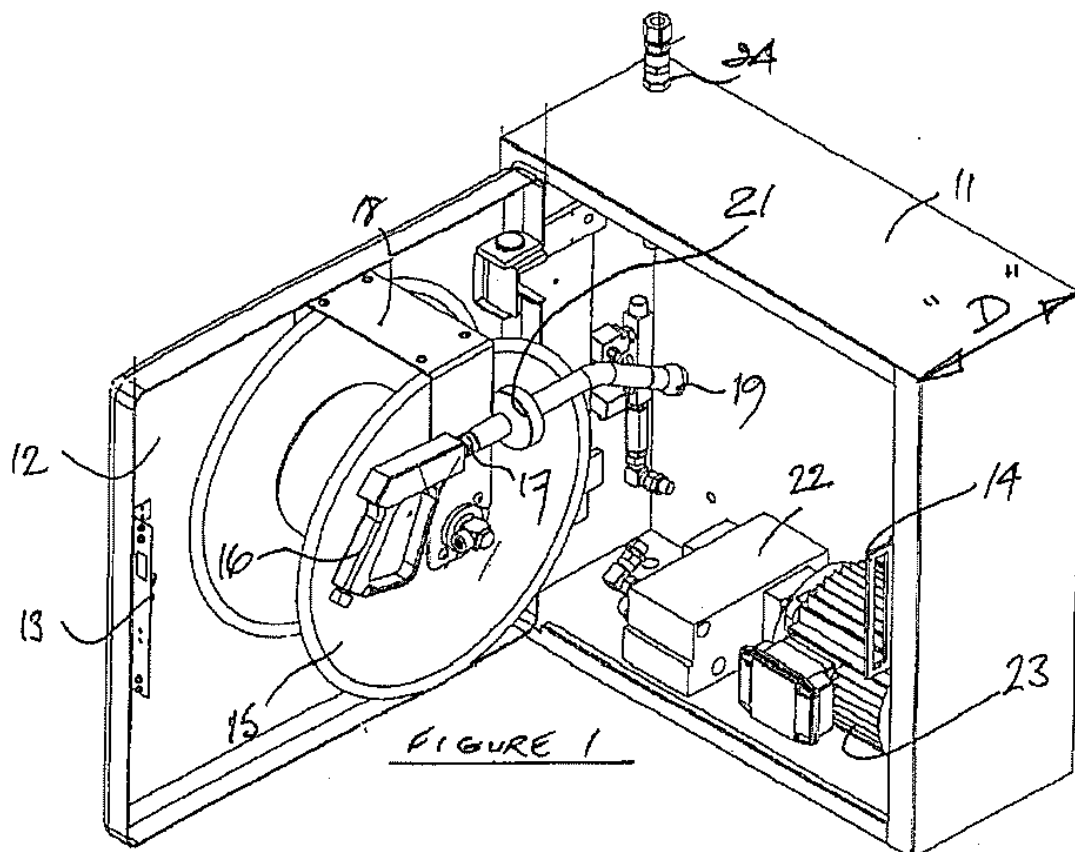
37. It is I believe sensible for reasons that should become clear to consider the claims not in the order that they were made but rather by considering first the

² *Yeda Research and Development Co Ltd v Rhone-Poulenc Rorer International Holdings Inc* [2008] RPC 1

entitlement to the granted patent GB 2458698 B, and then the entitlement to the patent application.

Identifying the inventors of the invention in GB2458698 B

38. Mr Cooke original claim was that he is entitled to be named as joint inventor of the invention set out in GB 2458698 B with Mr William Bridgman. However during the course of the hearing Mr Cooke's position shifted somewhat to one that appeared to be claiming that he was the sole inventor. I will return to that if necessary later. I will however say something first about the contents of the patent.
39. GB2458698 B relates to a hose reel unit for producing a fine mist or fog of water droplets. The particular embodiment set out in the patent, as shown in the figure below, has a hose reel 15, a pump 22 for generating a pressurised water supply to the hose and a power unit 23 to drive the pump. The components are located in a cabinet which could be of the type that is already widely used. One of the more common cabinets that has been referred to often in the course of this case is the Norsen Hose reel cabinet.



40. GB 2458698 B as granted has a single independent claim. This reads as follows:

Fire fighting unit comprising a hose reel, a pump for generating a pressurised water supply to the hose, a power unit to drive a pump, and an operator-controlled water releasing and water cut-off mechanism in the water-issuing nozzle region of the hose allowing an operator, in use, to hold and direct the water emerging from the nozzle region; characterised by the features, firstly that the hose reel, the pump, and the power unit are all housed within a cabinet; secondly, that the cabinet is so constructed that the operator must first open it before he can unreel the hose and operate the unit; thirdly, that the nozzle when operated delivers the water at a pressure which is reduced relative to the pressure at which the pump supplies water to the nozzle via the hose; fourthly, that the water emerges from the nozzle in the form of a generally conical wide-area fine mist or fog of water droplets; fifthly, that the cabinet is a cabinet incorporating an openable and closable hinged lid which forms an openable and closable door to the cabinet; sixthly, that the hose reel is mounted inside the cabinet; and finally, that as the hose is unreeled, the hose reel does not detach from the apparatus in use.

41. From the evidence it appears that the product set out in this patent, which is sold under the brand of the Hydramist Modular unit, has been commercially successful and has been installed in many premises including widely in prisons.
42. It is I believe common ground between the parties that the idea of putting the pump and motor into the cabinet is, either the heart or one of the hearts of the invention set out in the patent. It is this that Mr Cooke claims he devised. This is challenged by Watermist who argue that it was Mr Bridgman who had this idea. It is I believe common ground that the likely date that the invention was made was sometime between the end of 2007 up to March 2008.

Evidence on inventorship

43. The evidence on inventorship is primarily the direct evidence provided by the two individuals, Mr Bridgman and Mr Cooke, who each claim to have had the idea of putting the pump and motor in the housing. As can sometimes be the case with disputes of this nature involving small informally run companies, there is little by way of documentary evidence to help me.
44. Mr Cooke has provided two witness statements. Mr Cooke claims that he had the idea of fitting a pump and motor in a standard cabinet one Saturday morning in late 2007 whilst he was at Warrens and whilst he was thinking about cost effective suppression of oven fires. Fireworks was in 2006/2007 doing a number of installations in the catering industry. Apparently some of these factories have significant banks of ovens. According to Mr Cooke the only way to extinguish a fire inside one of these ovens was with a hose. The hoses installed tended to be ordinary mains pressure hoses which were not very effective. Installing a higher pressure system using a central pump would have required a significant investment. In addition food factories tended to have large fat fryers, a fire in which could only effectively be put out using a mist of water particles.
45. Mr Cooke claims that he told Mr Bridgman about his idea of putting a pump and motor in a cabinet as a way of tackling oven fires without the need for a

centralised pump. He and Mr Bridgman had then tried to produce a rough prototype by fitting a pump and motor into a standard Norsen cabinet. According to Mr Cooke they obtained from the stores at Warrens the smallest pump and motor they could find and then fitted these in the bottom of the cabinet. Apparently it was not possible to close the door as the pump and motor fouled on the hose reel mounted on the door.

46. It is Mr Cooke's position that both he and Mr Bridgman thought that the idea of a self contained unit would also offer an affordable solution to the problem of dealing with fires in prisons especially compared with the more expensive option of a centralised pump system.
47. In his statement Mr Cooke goes on to explain how Mr Bridgman offered to get Warren's draughtsman, Mr Ian Orr, to draw up some design drawings. Mr Bridgman then ordered in a larger cabinet and Mr Cooke together with one or two other people installed the various components.
48. The prototype was developed further in the following months with the patent application being filed in March 2008. Mr Cooke was keen to emphasise that work developing the prototype took place after normal work hours or at weekends. He claims further that he carried out his part of the development either at his own home or on the premises of Warren Services. During this time he continued to carry out his contractual duties for Fireworks. Mr Cooke also refers to the involvement at the time of a Mr Paul Clark who assisted with wiring the prototype.
49. Whilst some of this is accepted by both Mr Bridgman and Mr Killaspy, crucially both dispute that it was Mr Cooke who had the basic idea of putting the pump and the motor in the cabinet.
50. Mr Killaspy has provided three witness statements. He was also cross examined by Mr Alkin. Mr Killaspy accepts that he was neither present when the idea occurred nor was he present during the initial discussions about the idea between Mr Cooke and Mr Bridgman. He does however remember that Mr Bridgman rang him in late 2007 to say that "he (Mr Bridgman) had had a new and brilliant idea". In his second witness statement Mr Killaspy clarifies this slightly by stating that Mr Bridgman told him that he had thought of a "new and brilliant idea of putting a pump and motor into a hose reel cabinet". In his third witness statement, again referring to the same conversation, he states that Mr Bridgman rang him to say he had had a "new and brilliant idea of solving the Ministry of Justice prison cell fire problem by fitting a pump, motor and hose reel into the so called Norsen fire hose cabinet".
51. There is a difference between coming up with the general idea of putting all the components into a cabinet and recognising that that idea might be applicable to solve the problem encountered by the Ministry of Justice in tackling fires in prisons. If all that Mr Bridgman did was to build on the idea of Mr Cooke by recognising a potential application then he would not be entitled to the invention set out in GB2458698 since, although the patent refers to a possible use in prisons, it is clear that the invention relates to more than just the identification of a particular application.

52. Mr Killaspy also suggests that the idea for the invention came not from Mr Cooke's consideration of problems with the food industry but rather as a result of his own experience and involvement in a number of fire tests performed with the Ministry of Justice.
53. There is some dispute about the nature of Fireworks involvement with the Ministry of Justice and the precise roles played by Mr Cooke and Mr Killaspy in this respect. What doesn't seem to be in dispute is that Fireworks was installing fire suppression systems in prisons prior to the patent GB 2458698 being filed. In addition Mr Derek Killaspy in cooperation with Warrens had devised a mobile fire suppression unit and a small number of these had been sold to the prison service. Mr Killaspy notes also that he was involved in helping the Ministry of Justice develop bespoke fire fighting products specifically for their risks. As part of this he was involved in a number of fire tests. He states that he naturally reported details of his experience to Mr Bridgman and it was this that led Mr Bridgman to come up with the invention in GB2458698.
54. Somewhat surprisingly Mr Bridgman does not corroborate any of this. His single witness statement extends to just four paragraphs. This essentially just says that he and he alone had the idea for the invention in GB2458698 B and that he communicated it to Mr Cooke. What is noticeable about the written and oral evidence given by Mr Bridgman is that he gives no indication as to how he came to arrive at the idea. He was pressed on this by Mr Alkin during cross-examination. There was I believe ample opportunity for Mr Bridgman to respond to Mr Cooke's explanation of how he came up with the idea with an explanation of his own. All that he did say during cross-examination was that "it was quite a long convoluted story". That does not in my mind sit comfortably with Mr Killaspy's version of events. It would have taken little effort on Mr Bridgman's part to simply say that Mr Killaspy had shared his experience from the Ministry of Justice tests and that that had provided Mr Bridgman with the catalyst for the invention. Mr Bridgman was however adamant when questioned by Mr Alkin that his contribution was not limited to recognising the potential prison application of the invention but rather extended to also cover devising the core idea of putting the pump and the motor in the cabinet.
55. Mr Killaspy also challenges Mr Cooke's version of events surrounding the development of the prototype. He suggests that it was simply not practical for Mr Cooke to undertake any development work at his home. Rather it was carried out entirely at Warrens and that a Mr Gary Stevens, an employee of Fireworks, was also involved with fabricating and installing the pipework into the prototype.
56. Whilst there is some dispute over who was actually involved in the development of the prototype and also where that development work occurred, it does not seem to be in dispute that both Mr Bridgman and Mr Cooke were involved. Had one not been involved then that may have been harmful, though not necessarily fatal, to their claim to being the inventor. As it was it seems clear that both were involved hence where and how the prototype was developed is I believe ultimately not significant in terms of

deciding who the inventor was, as the basic idea of putting the pump and the housing into the cabinet had already been arrived at. The development of the prototype was an exercise in putting the invention into practice. That is not to diminish the effort needed to do that which may also have required additional inventive effort.

Mr Cooke's failure to raise issue of ownership and inventorship earlier

57. Mr Silcock questioned why if Mr Cooke was the inventor as he claims, had he not raised the issue earlier. He notes that it was only after Watermist had raised the possibility of Mr Cooke and Mr Musk infringing its patent, and after it had launched entitlement proceedings in respect of the application filed by Mr Cooke and Mr Musk, that the entitlement to GB2458698 B became an issue. This apparent lack of concern over such a long period indicates according to Mr Silcock that Mr Cooke did not believe that he had any rights. If this wasn't the case then why did he not raise it before?
58. Mr Cooke recollections of what he knew about the patent application were hazy to say the least. He conceded under cross examination that he had been told an application had been made but could not recollect who told him or when. He recollected telling Ms Debbie Bingham, a senior employee of Fireworks, that he didn't think the idea was patentable. When pressed on whether he had seen any reference to the patent application on any literature produced by Fireworks, or whether he had been informed of the meeting referred to by Mr Jones of IP21, he seemed particularly evasive. Often he would couch his response in terms of there not being a patent at the time. It is of course possible that Mr Cooke did not appreciate that rights can arise before a patent is granted and that it is common to mark merchandise with the publication number of patents that are still pending however the general impression that Mr Cooke gave in this part of his testimony was of being somewhat evasive.
59. In pursuing this point Mr Silcock was seeking to show that Mr Cooke had in fact been aware of the patent application for a considerable period of time yet had not sought to question whether the contribution that he is claiming to have made had been properly reflected. Mr Silcock notes by way of example that the 5 page letter that Mr Cooke sent on 30th June 2010 appealing against his dismissal from Fireworks makes no mention of his claim to having had the idea at the heart of the GB2458698 B patent. Mr Cooke's response was that his focus at the time was on saving his job rather than worrying about a patent that might not be granted.
60. I find it surprising that Mr Cooke did not raise the matter earlier. On the evidence before me, including the testimony of Mr Cooke himself, I am satisfied that he was aware of the patent application relatively soon after it was filed. If he had been able to put forward some evidence to show that he had at least made enquiries about whether his claimed contribution was being recognised then that would have strengthened his case. Mr Alkin pointed out that the delay in raising the issue was entirely reasonable given Mr Cooke's doubts as to whether a patent would be granted for something that he considered fairly obvious.

61. The omission of any reference to the patent in the five page letter appealing against his dismissal is more understandable. I believe the contents and the tone of the letter lend support to Mr Cooke version of events. The letter reads as a set of replies to specific charges that had apparently be made against Mr Cooke. Nowhere in the letter is anything from Mr Cooke setting out what he had contributed to Fireworks over the years. If there was something to that effect then I might have expected him to mention his contribution to the invention in GB2458698 B since its commercial success by then was known. But as I have mentioned the letter did not really go into Mr Cooke's contribution to Fireworks hence I do not think I can infer anything from the lack of any reference to his claim of inventorship.
62. There is one further event that I feel I should discuss briefly. This is the meeting, referred to be Mr Jones of IP21 in his evidence that he had with Mr William Bridgman, Mr Richard Bridgman and Mr Derek Killaspy and Mr Martin Rickard (of Watermist) concerning the filing of the patent application. According to Mr Jones, he was informed at that meeting that for the purposes of the patent application Mr William Bridgman alone should be mentioned as the inventor. I have no reason to doubt Mr Jones on this. Had Mr Cooke been present at that meeting, or been made aware of what was agreed, and had acquiesced to Mr Bridgman being named sole inventor, then that would clearly have supported Fireworks' case. As it was he was not at that meeting and Fireworks has not produced any evidence to suggest that Mr Cooke had been made aware of what had been discussed. Hence I do not think it really helps me.

Discussion of the evidence and conclusions on inventorship

63. The onus or burden of proof in this instance is on Mr Cooke to demonstrate on the balance of probabilities that he was the inventor or at least co-inventor of the idea of putting the pump and the motor inside the hose reel cabinet. Mr Alkin argues that because his client has at least presented a version of how he came up with the invention that this somehow shifts the evidential burden of proof onto Mr Bridgman. What Mr Cooke's explanation may do is to bolster the strength of his evidence in the same way that the lack of a corresponding explanation may lessen the weight of Mr Bridgman's evidence. But in order for me to decide the point I still need to carefully weigh up all the evidence and then decide whether on the balance of probabilities that evidence shows that Mr Cooke should be named as an inventor on GB2458698B.
64. I start with the evidence in support of Mr Cooke's claim. Central to this is the evidence of Mr Cooke. Mr Cooke as discussed above was not an entirely convincing witness. He was at times evasive and selective with his memory. That he was, as he acknowledged, less than truthful to customers about his position in the company also undermines his credibility to some extent. He did however at least present a credible and consistent story as to how he arrived at the invention. He was also consistent under cross examination that it was he and he alone who had the idea for putting the pump and motor in the housing. Mr Cooke was also involved in developing the idea into a working prototype. But other than his own witness statements and testimony he has not provided any real evidence to support his claim.

65. On the other side is the witness statement and testimony of Mr Bridgman. He too was a far from convincing witness and what stands out about his evidence is that it is in essence just a bare assertion that it was he and he alone that had the idea. Unlike Mr Cooke he does not even attempt to explain how he came up with the idea. He had ample opportunity to provide some background but chose not to do so. I find that surprising and particularly harmful to Fireworks' case.
66. I turn next to Mr Killaspy. He was of the three the most convincing witness. Mr Killaspy attempted to fill the void left by Mr Bridgman by suggesting that it was his reporting to Mr Bridgman of the Ministry of Justice tests that was the catalyst for Mr Bridgman coming up with the invention. Had Mr Bridgman backed up Mr Killaspy on this then this would probably have been enough for me to find in Firework's favour. Unfortunately without the support from Mr Bridgman, Mr Killaspy's evidence on this point loses some of its weight. The other significant aspect of Mr Killaspy's evidence, at least in relation to the question of inventorship, was the telephone conversation that he had with Mr Bridgman shortly after the invention had been devised. I find Mr Killaspy's evidence on this not as strong as other parts of his evidence. There is I believe some confusion in his various witness statements as to what precisely Mr Bridgman told him. Was it for example that he (Mr Bridgman) had had the idea of putting the pump and motor in the housing? Or was it merely that he had had the idea that the design that Mr Cooke had told him about as a possible solution to oven fires might also work in prisons?
67. Of the other arguments put forward by Firework's in support of its case, the only one which had in my view any traction was the delay by Mr Cooke in raising inventorship as an issue. I am satisfied that he did know about the patent application relatively soon after it had been soon yet he did not raise the issue of his entitlement until after he and Mr Musk had been informed that they may be infringing the patent. Mr Cooke's argument that he didn't think a patent would be granted was in my mind not entirely persuasive.
68. So where does this leave me? The scales are certainly not straining under the weight of evidence provided by both sides. However the total weight of evidence is ultimately not important. What matters is whether after having carefully weighed up all the available evidence I believe that it was more likely than not that Mr Cooke came up with the idea of putting the pump and motor in the cabinet.
69. I have come to the conclusion that Mr Cooke has not done enough to convince me that was the case. In a case such as this where there is no documentary evidence, credibility is crucial. Unfortunately I found both Mr Cooke and Mr Bridgman to be lacking equally in this respect. The burden of proof, together with what other little evidence there was, for example the testimony of Mr Killaspy, works against Mr Cooke to the extent that I am unable to find in his favour.
70. In case I am wrong on this I will go on to consider whether Fireworks would as it claims, nevertheless have been entitled to the invention by virtue of its employment at the time of Mr Cooke.

Scope of Section 39

Is Section 39 a complete code for determining ownership of an invention?

71. Mr Silcock for Fireworks sought to argue at least initially that even if Fireworks was unable to succeed under section 39, then property in one or both of the inventions might still be held on constructive trust for Fireworks if in making the invention either Mr Cooke or Mr Musk had acted in breach of fiduciary duty or in breach of the duty of fidelity.

72. Mr Alkin response was that this was simply wrong in law. Section 39 is he argues a complete code which excludes the operation of other rules of law. He sought support from the comments of Pumfrey J in paragraph 13 of *French and Mason*³.

In a case to which section 39 of the Patents Act 1977 applies, I am quite satisfied that there is no question of the employee retaining beneficial ownership as against the employer. Were this the case, the employer would require a licence to work the invention, a possibility of which there is no suggestion anywhere in the section. Where the section speaks of the invention being "taken to belong to his employer for the purposes of this Act and all other purposes" it is in my view plainly talking about ownership in a sense which is not technical, and which does not distinguish between legal and equitable ownership. It is talking of the ownership which permits the owner to deal with the patent and to work under it.

73. On this point I am with Mr Alkin. The opening line of section 39, which reads "Notwithstanding anything in any rule of law" makes this perfectly clear. Section 39 is a complete code such that if Fireworks is unable to show entitlement under that provision then it cannot rely on some other rule of law to secure ownership, beneficial or otherwise in the invention.

74. So what does section 39 require? I will start with section 39(1)(a). The first limb of this provision relates to whether the invention was "*made in the course of the normal duties of the employee or in the course of duties falling outside his normal duties, but specifically assigned to him.*"

Section 39(1)(a) - The duties of Mr Cooke

75. There was surprisingly some disagreement about the formal role that Mr Cooke had in Fireworks in late 2007. Mr Killaspy suggested in his witness statement that Mr Cooke had by then been appointed Operations Manager. In his opening remarks Mr Silcock sought to clarify this by suggesting that although Mr Cooke had not formally been appointed Operations Manager, the title did reflect his effective status and duties within Fireworks. I will return to that shortly.

76. I will however start by considering what is now accepted to be Mr Cooke's formal title at the time; namely that of senior supervisor.

³ Christopher Simon French v Paul Julian Mason and Another [1999] F.S.R. 597

Mr Cooke's normal duties as a senior supervisor

77. Mr Cooke has helpfully provided a copy of his contract of employment that was drawn up in March 2002. Although the version submitted was not signed by Mr Cooke there does not seem to be any dispute that the contract did reflect the duties that he was expected to perform as a senior supervisor.

78. The duties referred to include:

“to carry out works connected with the installation of various fire suppression and detection systems, overall supervision of works both office and site based and Liaise with clients”.

“fabrication and installation of bracketry and pipework, pressure vessels, cylinders and pump units”.

79. Fireworks was at the time primarily involved with the installation of fire suppression equipment. This was equipment manufactured and supplied by other companies including later on by Watermist. Mr Cooke's role as a senior supervisor included supervising these installations. In addition to supervising others to do the installation, he would if necessary lend a hand with the actual installing. According to Mr Cooke, any inventive activity associated with his duties as a senior supervisor was limited to solving installation issues. For example if an installation required a new design of bracket to support the pipe work then he might contribute an inventive input. Mr Alkin accepted that any invention made by Mr Cooke to overcome an installation issue might belong to Fireworks under section 39 but the invention in GB2458698 B was not a solution to an installation problem and hence was outside the scope of Mr Cooke's normal duties. Mr Cooke consistently maintained during cross examination that it was not within the range of his duties to apply any inventive effort in respect of the core parts of the fire suppression system, for example the cabinets, pumps and motors that Fireworks sourced from third parties including Watermist.

80. In terms of his duties beyond supervising installations, Mr Cooke accepts that at times he would undertake surveys of prospective sites in order to provide estimates to potential customers. In his first witness statement he notes that:

“Fireworks also did some work as a main contractor directly to end users. For this type of work, Derek [Killaspy] or I would survey the site and draw up a list of what was needed, the admin staff would buy it and the fabricators/pipefitters would install it”

81. Mr Cooke admits that when he was not engaged on installations he would also do some sales. This involved him contacting potential customers. Mr Cooke contends that such sales work was never part of his job description and that he was not paid extra for doing it. His contract does refer to liaising with customers though this of course could mean just discussing installation issues with existing companies.

82. Mr Silcock suggests that Mr Cooke would also discuss with customers possible improvements to the products that Fireworks were looking to sell them. There is however no real evidence to show that such discussions took place. Mr Cooke's position is that any such discussions were limited to how the customer's needs could best be met by the products that were already available to Fireworks.
83. Fireworks also suggests that Mr Cooke was trained in-house in design and installation and that he attended many design meetings. It has however not provided any evidence to substantiate this. Mr Alkin suggests that the only "design" that Mr Cooke was involved in with Fireworks was adapting known systems to the layout of the building that they were to be installed in. He goes on to suggest that the only relevant training that Mr Cooke had was a one day course in how to install Fogtec systems. It is I believe clear that Fireworks was not a company that was involved in developing new products and that Mr Cooke's duties likewise did not extend to designing or developing new products for Fireworks.
84. However Watermist was at the time seeking to develop a range of products that could be installed by Fireworks. There was an overlap in terms of the controlling minds of both Watermist and Fireworks in the form of Mr Killaspy who was a director of both. It is however unclear to me how involved Mr Cooke was in the development of products for Watermist and whether this was part of his duties at Fireworks even though he was not an employee of Watermist. It seems to be common ground that he was not involved with the development of the nozzle head that was the subject of Watermist's first patent. Mr Cooke also contends that he had no involvement with the development of the mobile fire fighting unit that Warren's developed for Watermist. On the basis of the material before me it seems that the extent of Mr Cooke's involvement in this area was to provide Warrens with technical advice on systems that already existed. There is nothing to suggest that Mr Cooke as part of his duties for Fireworks was engaged in designing new products for Watermist.

Mr Cooke's normal duties during Mr Killaspy's absence from Fireworks

85. From mid 2007 until late 2009 Mr Killaspy was in his own words "absent from work more and more often". This period overlaps with the period in which the idea of putting the pump and the motor in the housing was devised. He states that he arranged to be kept in touch with developments by Ms Deborah Bingham who was at that time the day to day Accounts Manager for Fireworks. He also looked for Ms Bingham to help ensure the continued working relationship between Fireworks, Watermist and Warren Services. Mr Killaspy goes on to claim that staff at Fireworks began turning to Mr Cooke "more and more for technical, operational and organisational decisions" during the period he was absent. Mr Killaspy also suggests that at the time that the invention was made, Mr Cooke was "virtually running Fireworks day to day with only financial bookwork help from Bingham". He cites by way of example of this Mr Cooke arranging for staff from Fireworks to work at Warrens on the prototype of the invention.

86. Mr Cooke notes, and this was not challenged, that he was not formally and explicitly given any specific additional responsibilities, nor was he offered a new contract of employment nor any increase in pay even on a temporary basis to cover for Mr Killaspy. Mr Cooke, during the time that Mr Killaspy was away, did by his own admission become more involved than he had been previously in trying to bring in business. But that seems on the limited evidence before me to be the extent of any additional duties. There is nothing to suggest that Mr Killaspy's normal duties for Fireworks at that time, or indeed ever, involved designing or inventing new fire suppression systems and even if they did there is nothing to suggest that Mr Cooke took on these duties whilst Mr Killaspy was absent.
87. Mr Alkin suggests that because Mr Cooke was never asked to take on any additional responsibilities, was not promoted or given any pay rise then as a matter of simple contract law he cannot be assumed to have taken on any additional duties. He notes that a contract is a mutual exchange of promises. One party to an existing contract cannot unilaterally impose additional duties on the other party. He notes that Mr Cooke would have been entirely within his rights to decline to take on any work which did not fall within his job description at the time.
88. Whether the duties referred to in section 39 would encompass additional duties not covered by a contract of employment and taken on without any specific instruction or consideration, but also without any protest, is an interesting point. It is not however a point I believe I need to decide on here. This is because the only additional duty that Mr Cooke arguably did take on was to do more sales. But that role, which to some extent by his own admission he was already doing, is about trying to get potential customers to buy existing fire suppression systems, albeit if necessary with a customised layout. It is not a sales role aimed at providing customers with novel major components for such systems. Hence even if the additional sales duties that Mr Cooke did take on could be said to fall within his "normal or assigned duties" then I still do not believe that the invention was made in the course of such duties.

Mr Cooke's time spent at Warren Services

89. It is Mr Cooke's contention that he had the idea of putting the pump and motor in the cabinet one Saturday morning whilst he was at Warrens. In addition to spending time at Warrens working on Fireworks' business, Mr Cooke also spent what appears to be a considerable amount of his spare time there. This was in his own words because he

"enjoyed experimenting with engineering problems. Will [Bridgman] was my friend and his factory gave me the ability to do this".

90. He goes on to note that:

"Because I spent my days installing fire suppression systems, I was naturally pre-occupied with fire suppression systems. But it was not part of my job to think about these problems. Derek did not ask me to do this, he did not pay

me to do it and I did not do it on his time. I did it on my own time because I enjoyed it”.

91. Mr Cooke notes that he also spent time at Warrens fabricating parts for his own business which provided spare parts for vintage Lambretta scooters. Again this was according to Mr Cooke done in his spare time and as such had nothing to do with duties at Fireworks.

92. Mr Alkin believes it is significant in this case that Mr Cooke had the idea in his spare time. He accepts that if Mr Cooke’s duties, normal or assigned were such as to require him to put his mind to inventing in the field covered by the patent then it would most likely be largely irrelevant if he ultimately came up with the idea in his own time. That has to be right. In *Missing Link Software v Magee*⁴ Baker J observed that:

It would appear that perhaps his lordship nodded when he said “ *i.e.* , in his employer’s time and with his materials,” in the case of patents. I think it is generally accepted that, if he was engaged to make an invention but did some work on it or had some inspiration about it at a time when he was not in the employer’s time, but at his own house in the bath, or something like that, nevertheless, that would be caught by this principle.

93. Mr Alkin argues that here Mr Cooke was not employed to invent and hence that he devised the invention in his spare time emphasises that he did not do it as part of his duties.

94. Mr Alkin refers to *Greater Glasgow Health Board’s Application*⁵ where the invention, which was an aid to ophthalmic examination, was made by a doctor, Dr Montgomery, whose duties to his employer was to treat patients. He came up with the invention whilst at home studying for his exams. Jacob J. noted:

Dr. Montgomery made the invention in his own time, actually when he was preparing for some further examinations. He was not treating a patient. He was considering the problem of eye examination generally. I have come to the very, very clear conclusion that when he made that invention he was not acting in the course of his normal duties as a registrar.

95. What I take from these cases is that if an invention is made by an employee during his employer’s time and on his employer’s premises then that might well point to it being made in the course of an employee’s duties. The significance if the invention is made in an employee’s spare time may not be so great and unsurprisingly ultimately depends on what the employee’s duties were.

Duties specifically assigned to Mr Cooke

⁴ *Missing Link Software v Magee* [1989] 1 F.S.R. 361

⁵ *Greater Glasgow Health Board’s Application* [1996] R.P.C. 207

96. I should add that it was not suggested that Mr Cooke was specifically assigned duties relevant to him devising the invention in issue. It may be arguable that the duties of Mr Killaspy that Mr Cooke took on without any apparent protest during Mr Killaspy's absence were duties specifically assigned to him. However given that I have concluded that none of these additionally duties related to the sort of activities that would give rise to the invention, then it would in the end have no bearing on the outcome whether these additional duties were in fact "normal duties" or "specially assigned" duties.

Summary of Mr Cooke's normal and specially assigned duties

97. I consider that Mr Cooke's normal duties at the time the invention was made to include undertaking and supervising others to undertake installations of bought in fire suppression systems. This might indeed involve problem solving and inventive activity but only in respect of addressing problems that arose from installing bought-in systems. As part of his normal duties he was also liaising with clients on matters relating to the installation of fire suppression systems. This might involve consideration of the overall layout of the system to be installed but did not extend to identifying and devising solutions to problems with the key components being installed such as the pumps and hose-reel units. He was also actively involved in seeking to generate new custom for Fireworks but only in respect of fireworks supplying and installing the sort of equipment that Fireworks had typically bought in.

Was the invention made in the course of those duties?

98. The nature of the invention is clearly relevant to the duties being undertaken by Mr Cooke since it relates to a fire suppression system and Mr Cooke's duties with Fireworks included installing similar fire suppression system. However the duties, normally or specifically assigned, that I set out above were not directed to devising new components for fire suppression systems and as such it follows that the invention was not made in the course of those duties.

Were the circumstances such that an invention might reasonably be expected to result from the carrying out of his duties?

99. I would add for completeness in case I am wrong on the first limb of section 39(1)(a), that if the duties of Mr Cooke, normal or assigned, had included seeking improvements to the core components of the systems being installed then I believe the circumstances were such that an invention might reasonably be expected to have resulted from the carrying out of those duties. This is because Mr Cooke, by his own admission, was a practical person with a particular interest in engineering problems. He used those skills to apparent good effect in solving installation problems.

Section 39(1)(b)

100. Mr Silcock argues that at the time that the invention was made, the nature of Mr Cooke's duties and the particular responsibilities arising from the nature of those duties were such that he had a special obligation to further the interests of the employer's undertaking. He goes on to recognise that whilst Mr Cooke was never appointed or remunerated as a director he was nevertheless a "de facto" director of Fireworks. In Gower & Davies' Principles of Modern Company Law⁶ it is noted under the head *De facto and shadow directors* that:

The general statutory duties to be discussed in this chapter are clearly owed by those who have been properly appointed as directors of the company. From the early days, however, the courts have applied the common law and statutory duties also to persons who act as directors, even though they have not been appointed as such – normally referred to as de facto directors.

101. The footnote to this part of the text refers to the case of *Secretary of State for Trade and Industry v Tjolle*⁷ which shows that the important question is whether the person is factually engaged in the central management of the company; if not then he or she will not be a de-facto director. The text also refers to *Ultraframe (UK) Ltd v Fielding*⁸ in which Lewison J. took the view that the director's fiduciary duties did not apply to shadow directors on the grounds that a shadow director, unlike to a de-facto or properly appointed director, had not undertaken to act on behalf of the company and so had not put him or herself in a fiduciary relationship with the company.

102. Mr Silcock contends that Mr Cooke was a de-facto director and as such he had a fiduciary duty to Fireworks. This duty encompasses the duty of undivided loyalty and denial of self interest⁹. This is a higher standard than the duty of loyalty or fidelity owed by all employees and is such as to bring him clearly within the requirements of section 39(1)(b).

103. Mr Alkin response on section 39(1)(b) took me first to *Harris' Patent*¹⁰ where Falconer J, having confirmed that section 39(1)(b) imposes a two stage test notes:

The wording of the paragraph, under condition (ii), clearly envisages that the extent and nature of the "special obligation to further the interests of the employer's undertaking" will depend upon the status of the employee and the attendant duties and responsibilities of that status. Thus, plainly the position in this regard of a managing director whose obligation to further the interests of his employer's undertaking of which he is the managing director will, no doubt, extend across the whole spectrum of the activities of the undertaking, will differ from that of, say, a sales manager.

104. According to Mr Alkin the starting point is again to determine the nature of the employee's duties and the responsibilities attendant upon duties of that

⁶ Gower & Davies' Principles of Modern Company Law, Eighth Edition 2008.

⁷ *Secretary of State for Trade and Industry v Tjolle* [1998] 1 B.C.L.C 33

⁸ *Ultraframe (UK) Ltd v Fielding* [2005] EWHC 1638

⁹ *Ranson v Computer Systems* [2012] EWCA 841

¹⁰ *Harris' Patent* [1985] RPC 2

nature. Mr Alkin accepted that Mr Cooke had at times referred to himself as operations director. However this was merely presentational for the benefit of potential customers. Mr Cooke was not according to Mr Alkin “swanning” around the company acting as a director. He did have responsibilities for supervising installations and during Mr Killaspy’s absent took on a slightly broader role. But this at best only extended to managing the operations of the company. Mr Killaspy remained in the background, in his own words seeking new business and supervising the company through Ms Bingham. Mr Alkin refers to the response of Mr Killaspy when questioned about whether he had consulted with Mr Cooke about partnering with the Bridgmans to form Watermist. Mr Killaspy had stated that he hadn’t noting that Mr Cooke was “not a partner in my business”. This confirms that Mr Cooke did not have a strategic role. He was merely a senior employee.

105. Mr Alkin suggests there is a close analogy between the position of Mr Cooke and that of Mr Harris in *Harris’ Patent*. Mr Harris was the manager of the Wey valve part of the business. He was responsible for the operations of that part of the business. Here Mr Cooke was responsible for the installation part of Fireworks business. In paragraph 40 of that judgement Mr Harris sets out his duties:

Again I maintain my position in the Reiss Engineering Company was called manager of the Wey valve division, but I was a manager without any responsibility for running my own department; I had no right to hire or dismiss staff; I was not allowed to make changes in the organisation of the Wey valve department without full approval from a director; I was not allowed to agree the holiday dates of the people in my department; I was not allowed to travel to overseas customers without approval of a director; I was not allowed to organise exhibitions for showing Wey valves. For Mr. Reiss to suggest that my functions were anything more than a senior sales engineer is incorrect.

106. Mr Alkin argues that there is a precise analogy with the position of Mr Cooke here. He too was not able to do any of these things. Mr Alkin also seeks support from two other cases discussed in *Harris*. It is sufficient here for me to simply reproduce the facts of those cases as set out by Falconer J in that judgement:

In *Worthington Pumping Engine Co. v. Moore* (1903) 20 R.P.C. 41, always regarded as a leading authority in this field, the defendant was a vice-president of the plaintiff company, an American corporation, and head and responsible manager of, and with sole control of, the English branch of their business and conducting their business outside the United States of America and Canada. His salary was \$10,000 per annum, a very large salary by any standards at the turn of the century—I should interpolate that the case was heard in 1903—and in addition he received a commission on sales. His position and the nature of his obligations were described by Byrne J. thus at page 46, line 1:

“I do not think I shall be wrong in saying that the defendant was in effect the alter ego of the plaintiff corporation outside the United States. The correspondence which has been referred to in the case shows that the relationship between the plaintiff corporation in America and the defendant as their agent and manager in England

was of the closest and most confidential character. The requirements of customers and the methods of meeting new wants and demands was the subjects of frequent communications between them, and I think it is beyond question that it was part of the defendant's duty to communicate and consult with the head office about any modifications and alterations in construction required to suit the demands of customers, and to offer such suggestions as might occur to him as advantageous to the plaintiff corporations in relation to the business he controlled. I think that he would not have been acting in accordance with the good faith implied in his contract had he kept back new ideas or details of construction suggested or carried out in the ordinary course of business between the parties (even though such ideas or details might have been in the hands of a third person properly subject matter for Patent) with a view to his personal profit at the expense of the plaintiff corporation. It appears to me that the degree of good faith due from the defendant to the plaintiff company was little, if at all, less than that required from a partner towards the firm of which he is a member."

It was held that two patents which he had taken out in his own name but employed in the plaintiff company's business were held by him in trust for the plaintiff company.

In *Charles Selz Ltd.'s Application (1954) 71 R.P.C. 158* the respondent was the manager of a factory making lampshades. While on a visit, in the course of his duties as such manager, to a trade exhibition, he saw a demonstration of a process for plastic packaging by spraying and appreciated it might be applied to make plastic coatings to frameworks for display articles and signs and also for making lampshades. He applied for a patent and his employers sought, in effect, a declaration that any patent granted would be held in trust for them. Lloyd-Jacob J. upheld the decision of the assistant comptroller rejecting the employers' claim, finding that the respondent had not at any time been directed to apply his mind for the purpose of devising an invention or anything in the nature of an invention and had no express duty to consider the possibility of finding some additional scope for the activities of his company and that in the circumstances the invention belonged to the respondent.

107. Mr Alkin suggests that Mr Cooke is nothing like the alto ego of Fireworks. He was an employee, albeit a senior employee, who reported either to Mr Killaspy or through Ms Bingham. In *Worthington* it was a part of the employee's job to discuss with customers bespoke solutions to their problems. Here in contrast Mr Cooke's role was simply to persuade the customer to have either existing unit X or existing unit Y. It was not his role to ask whether Fireworks could provide a bespoke piece of fire suppression equipment.
108. There is according to Mr Alkin a closer analogy with the *Selz* case. Mr Cooke had not been directed to apply his mind to developing new systems and even though, like the employee in *Selz*, he had a managerial or supervisory role, he had no express duty to find additional activities for Fireworks.

109. Falconer J found that the invention in *Harris* did not fall within section 39(1)(b). His reasoning, which Mr Alkin suggests applies equally here, is set out as follows:

It seems to me that, having regard to his status and the nature of his duties and responsibilities, as they were in fact under that status, the obligation which he had by reason of the nature of his duties and particular responsibilities arising therefrom was no more than to do the best he could to effect sales of the Wey valves which Reiss Engineering sold, valves made by Sistag or strictly to Sistag's drawings, and to ensure to customers after-sales service of valves supplied. Beyond that obligation, in my judgment, he had no special obligation to further the interests of Reiss Engineering's valve business. Accordingly, I hold that Mr. Harris's invention is not one falling within paragraph (b) of section 39(1).

110. Mr Alkin also refers to the case of *Helmet Integrated Systems Ltd v Tunnard*¹¹. Between 1993 and February 28, 2002 Mr Tunnard was a middle ranking manager for Helmet Integrated Systems Ltd (HISL). Mr Tunnard was not a designer; his main duty was that of a salesman. Whilst still in the employment of HISL in 2001, he hit upon an idea for a new modular helmet. Between September 2001 and February 28, 2002 Mr Tunnard took certain steps to advance his idea. He did so in his own time without the use of any HISL property. The new modular helmet was developed over a period of three years. Mr Tunnard incorporated Modular Helmet Systems Limited (MHSL) two months after his departure from HISL. HISL brought claims contending that Mr Tunnard had acted in breach of his duty of fidelity by developing a safety helmet which would be in competition with the HISL safety helmet, and had acted in breach of his fiduciary duties in failing to report his activities while still in HISL's employment.

111. Moses LJ. giving the leading judgement of the Court of Appeal addresses the question of fiduciary duty most notably in paragraph 36. He notes that:

36 It is commonplace to observe that not every employee owes obligations as a fiduciary to his employer. An employee owes an obligation of loyalty to his employer but he will not necessarily owe that exclusive obligation of loyalty, to act in his employer's interest and not in his own, which is the hallmark of any fiduciary duty owed by an employee to his employer. The distinguishing mark of the obligation of a fiduciary, in the context of employment, is not merely that the employee owes a duty of loyalty but of single-minded or exclusive loyalty. The decision of Elias J. in *University of Nottingham v Fishel* [2000] I.C.R. 14626 provides the clearest analysis of the distinction between the duty of fidelity which every employee owes and a fiduciary duty which requires an employee to act solely in the interest of his employer and not in his own interest, still less the interests of anyone else."

37 Elias J.'s decision is not only of importance in distinguishing between an employee's implied duty of loyalty and a fiduciary obligation but also in identifying how a fiduciary relationship might be established. I can do no better than recite Elias J.'s statement of principle:

¹¹ *Helmet Integrated Systems Ltd v Tunnard*¹¹. [2006] EWCA 1735.

“... in determining whether a fiduciary relationship arises in the context of an employment relationship, it is necessary to identify with care the particular duties undertaken by the employee, and to ask whether in all the circumstances he has placed himself in a position where he must act solely in the interest of his employer. It is only once those duties have been identified that it is possible to determine whether any fiduciary duty has been breached”

112. This according to Mr Alkin is on all fours with the approach required under section 39(1)(b). You have to look at the duties first and once you have analysed these you then go on to consider whether or not a further special obligation arises in the nature of a fiduciary duty or otherwise. In *Tunnard* the court accepted that the employee did have a fiduciary obligation to report competitor activity that he learnt as a salesman but he did not owe such an obligation in respect of deciding that he was going to develop a new helmet and set up in competition with the employer.

113. This distinction between areas of activity is important according to Mr Alkin and reads on to the case here. Mr Cooke may possibly have had a fiduciary or special obligation in the core area of his work which was installation but since developing new systems did not fall within the scope of his duties there was no special obligation in that area.

Conclusions and findings on Section 39(1)(b)

114. Section 39(1)(b) refers to the “duties” of the employee rather than the normal or specifically assigned duties that are the subject of section 39(1)(a). These “duties” therefore can differ from those that I have already identified in paragraph 97. If Mr Cooke was a de-facto director as Mr Silcock claims then his duties would be broader. Despite calling himself ‘Operations Director’ I do not however believe Mr Cooke held any such role in Fireworks. Whilst I would say it is somewhat untruthful, I accept Mr Cooke’s point and reasoning that he only called himself ‘Operations Director’ when undertaking sales work as he felt it gave a more positive image to customers. It was not a title that Mr Killaspy had given him nor was it a position that he was in any way remunerated for. Mr Cooke was neither a proper nor de-facto director of Fireworks. Rather Mr Cooke was a senior manager who had responsibilities for a part of Firework’s operation but was not engaged in the central management of the company. Hence I do not believe that his duties so far as I need to consider for section 39(1)(b) were significantly different to the duties I have already in respect of section 39(1)(a). It follows that I do not believe that the invention was made in the course of those duties since those duties did not involve designing new systems. That alone is sufficient to deal with section 39(1)(b) but for completeness I would add that I also do not believe that Mr Cooke’s duties were such as to create any special obligation to further the interests of Fireworks. He was a senior manager who owed a duty of fidelity to his employer but he was not in a position where he owed a fiduciary duty or was under a special obligation to further the interests of Fireworks.

115. Hence Fireworks, or through it Watermist, has no claim under section 39(1)(b) to the idea of putting the pump and motor in the cabinet that is set out in GB2458698B.

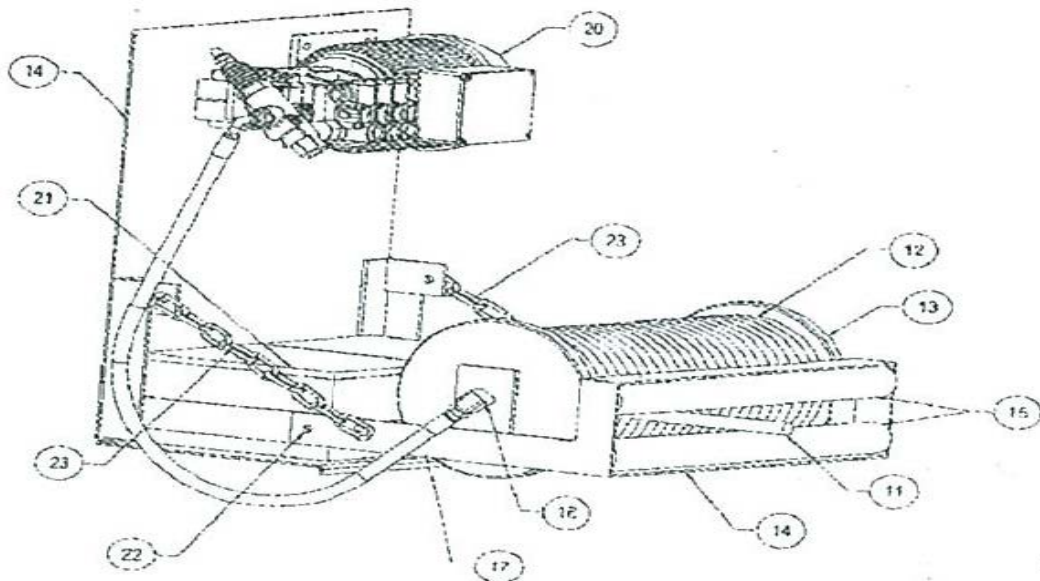
116. I turn now to the contested patent application.

GB 2479863 A

117. The issue of who are the inventors of GB 2479863 A is not before me. For the purposes of this decision I must proceed on the basis that the inventors are the currently named inventors Mr Andrew Cooke and Mr Kevin Musk. I will however say a little about the invention in that application.

118. The invention relates to a hose reel unit of the sort designed to quell fires in buildings. More particularly the hose reel unit includes provision for converting the stream of water into a cone of fine water droplets or mist. Such systems are considered to put out fires more quickly and use less water however they typically require a pump to increase water pressure. Apparently supplying mains electricity to power the pump can be problematic. The invention seeks to overcome this by providing a hose reel unit with its own battery and pump. The components can be housed within a known type of cabinet. The unit can also be capable of being moved from a storage location to a location nearer the fire to be extinguished.

119. Further details of the invention can be seen in the figure below which is taken from the application. The hose reel 12 is mounted to pivot down about pivot 22. The pump and motor 20 are powered by batteries located in the frame adjacent to the hose reel. The patent application was filed on 22nd April 2010 and names Mr Cooke and Mr Musk as applicants and inventors.



120. According to Mr Cooke, Fireworks was in 2008 selling a significant number of the Hydramist modules. Mr Cooke was part of the effort to sell

these systems. He claims that in light of the experience he had of the modular system he and Mr Musk came to the conclusion that their design could be improved. In particular he thought its weight and size could be reduced thus making them easier to install and less expensive to make. He was also aware that the systems being supplied were dependant on mains electricity and hence would be unusable in the event of a power failure.

121. He claims that he suggested to Mr Killaspy that time be spent trying to improve the system. According to Mr Cooke, Mr Killaspy “flatly refused to sanction this” saying that “enough had been spent on R&D already and we were going to sell what we had”. Mr Killaspy then made a statement at an office meeting to that effect. None of this is denied by Mr Killaspy.

122. Mr Cooke states that he and Mr Musk “decided to carry on thinking about how to improve them anyway”. Mr Musk and he decided to try and fit everything into a standard Norsen cabinet. They experimented with different power sources for generating the required water pressure. Mr Cooke then states that on Friday 5th February 2010 whilst driving home from work he had the idea of using a small pump driven by a small DC motor powered by a battery pack and charging module. He discussed this with Mr Musk who contributed a number of other ideas for the system. Mr Cooke then spent the weekend contacting companies with a view to having a prototype built. He states in his witness statement that:

“After my experience with the fire hose module and Kevin’s experience with the mobile unit, we did not want to do this ourselves at Warrens. This time we wanted to have some control over and benefit from our idea”.

123. A prototype was subsequently built by a company called Cleanwright. An engineer from that company, Mr Steve Wright brought the prototype to Fireworks premises where it was inspected by Mr Cooke. Shortly afterwards Mr Cooke and Mr Musk engaged the services of Novagraaf to draft and file the patent application.

124. Fireworks claim that the invention set out in this application belongs to them under either section 39(1)(a) or (b) by virtue of its employment of both Mr Cooke and Mr Musk at the time that the invention was made. There is no dispute that both Mr Cooke and Mr Musk were employed by Fireworks at that time. To determine if Fireworks is so entitled I need to consider what were the relevant duties of these two people at the time.

Mr Cooke’s duties at the time the invention in GB 2479863 A was made

125. I have discussed at some length already the nature of the duties of Mr Cooke at the time that the first invention was made. That was some two years before the invention in GB 2479863 A was devised. So had Mr Cooke’s duties changed in those two years?

126. Mr Killaspy’s absence from Fireworks ended in mid-November 2009. In respect of his return he notes that Mr Cooke:

“wasn't prepared to revert to his former status under me. He told me he didn't want to deal with projects anymore and wanted to do sales”.

Mr Killaspy apparently agreed to this, though with some reluctance as he was not convinced of Mr Cooke's skills as a salesman. It would appear that Mr Cooke was given a relatively free rein to pursue sales with little direct supervision by Mr Killaspy. There is however nothing before me to suggest that Mr Cooke was engaged as part of that sales role in seeking to identify possible new products for Fireworks. He was again looking to sell what Fireworks already had. Although it was not entirely clear from the evidence it would appear that Mr Cooke had at this time distanced himself from organising or involving himself in installation work.

Mr Musk's duties at the time the invention was made

127. Mr Musk has also provided a copy of his contract of employment dated December 2002 and listing his job title as “site engineer”. Again this has not been signed by Mr Musk but he accepts it covers his duties as a site engineer. The duties set out mirror those I have already described for Mr Cooke in paragraph 78 with the exception that it does not include overall supervision of works both office and site based, organisation of materials and labour for works or liaising with clients. This reflects Mr Musk's more junior status within the organisation compared with Mr Cooke. In practice Mr Musk was initially employed as a store man although since he was a trained welder he also fabricated parts to a given specification. He was then given a role that focused more on procurement with responsibility for buying in parts required for particular projects that Fireworks were involved with. He was given the role of site engineer although it is claimed that this was a role in name only as due to personal commitments Mr Musk undertook relatively few site visits.

The significance of Mr Killaspy telling Mr Cooke and Mr Musk not to develop the Hydramist Module

128. According to Mr Alkin, the fact that Mr Cooke and Mr Musk thought it necessary to ask permission to develop the modular unit demonstrates that this sort of activity was not part of their normal duties. If it was then there would have been no need to ask.

129. Mr Silcock unsurprisingly takes a different view. He argues that even if an employee, instructed by his employer not to work on a particular project, nevertheless decides to work on that project in a way that results in an invention, then that invention can still belong to the employer under section 39. The starting point for his argument is the comments of Jacob in LJ in paragraphs 100 and 101 of *LIFFE Administration and Management v Pavel Pinkava*¹² where he discusses the duties referred to in section 39. Jacob LJ notes:

¹² *LIFFE Administration and Management v Pavel Pinkava* [2007] RPC 30

100 Clearly another factor relevant to the determination of duties is the extent to which the common law imposes a duty of confidence on the employee. Section 42(3) makes it clear that Parliament was not intending to abrogate this duty in relation to employee inventions. So if in the course of his work an employee comes up with an idea which the common law would require him to hold as confidential to his employer, that will be covered by s.39. Any other conclusion leads to the absurd result that an invention would belong to the employee and yet he would owe a duty of confidence to his employer. Parliament cannot have intended such a stalemate. It follows that to some extent at least, although s.39(1) is a complete code, it lets the common law back in via the concept of "duty."

101 The section provides that the invention must be made "in the course" of the employee's duties. This clearly draws on the well-known common law concept of "in the course of employment". The classic contrast is "a frolic of his own". In practice once the duties are ascertained this requirement should cause little difficulty.

130. Mr Silcock draws on this reference to the common law concept of "in the course of employment" to suggest that how this phrase has been interpreted in the area of vicarious liability can shed some light on the interpretation of section 39. He refers in detail to a number of authorities that illustrate the development of judicial thinking on this. These cases include *Lister v Helsey Hall*¹³, *Dubai Aluminium*¹⁴ and *Majrowski*¹⁵. What emerges from these cases is that the basic principle that an employer may still be held vicariously liable even where an employee is acting against specific instructions has remained constant. What has changed is the route by which such findings have navigated from the idea that the tort should be in the course of employment. What seemed a somewhat tortuous route that relied on the idea of implied authority has been made much straighter and logical by focusing not so much on whether something was done in the course of employment but rather by looking at the closeness of the connection between the offending conduct of the employee with the nature and circumstances of that employment. This is brought out in the example given in the follow extract from *Lister* which was considering the question of whether as a matter of legal principle the employers of the warden of a school boarding house, who sexually abused boys in his care, may depending on the particular circumstances be vicariously liable for the torts of their employee. In a discussion on how the law should be applied Lord Steyn commenting on earlier guidance set out in *Salmond*, Law of Torts 1936, noted:

20 ... The usefulness of the *Salmond* formulation is, however, crucially dependent on focusing on the right act of the employee. This point was explored in *Rose v Plenty* [1976] 1 WLR 141. The Court of Appeal held that a milkman who deliberately disobeyed his employers' order not to allow children to help on his rounds did not go beyond his course of employment in allowing a child to help him. The analysis in this decision shows how the pitfalls of terminology must be avoided. Scarman LJ said, at pp 147-148:

"The servant was, of course, employed at the time of the accident to do a whole number of operations. He was certainly not employed to give the boy a lift, and if one

¹³ *Lister v Helsey Hall Ltd* [2001] UKHL 22

¹⁴ *Dubai Aluminium Co Ltd v Salaam* [2002] UKHL 48

¹⁵ *Majrowski v Guy's and St Thomas's NHS Trust* [2006] UKHL 34

confines one's analysis of the facts to the incident of injury to the plaintiff, then no doubt one would say that carrying the boy on the float—giving him a lift—was not in the course of the servant's employment. But in *Ilkiw v Samuels* [1983] 1 WLR 991 Diplock LJ indicated that the proper approach to the nature of the servant's employment is a broad one. He says, at p 1004: 'As each of these nouns implies'—he is referring to the nouns used to describe course of employment, sphere, scope and so forth—'the matter must be looked at broadly, not dissecting the servant's task into its component activities—such as driving, loading, sheeting and the like—by asking: what was the job on which he was engaged for his employer? and answering that question as a jury would.'

"Applying those words to the employment of this servant, I think it is clear from the evidence that he was employed as a roundsman to drive his float round his round and to deliver milk, to collect empties and to obtain payment. That was his job ... He chose to disregard the prohibition and to enlist the assistance of the plaintiff. As a matter of common sense, that does seem to me to be a mode, albeit a prohibited mode, of doing the job with which he was entrusted. Why was the plaintiff being carried on the float when the accident occurred? Because it was necessary to take him from point to point so that he could assist in delivering milk, collecting empties and, on occasions obtaining payment."

If this approach to the nature of employment is adopted, it is not necessary to ask the simplistic question whether in the cases under consideration the acts of sexual abuse were modes of doing authorised acts. It becomes possible to consider the question of vicarious liability on the basis that the employer undertook to care for the boys through the services of the warden and that there is a very close connection between the torts of the warden and his employment. After all, they were committed in the time and on the premises of the employers while the warden was also busy caring for the children.

131. Mr Silcock accepts that it was not clear from the *Pinkava* decision whether Jacob LJ had vicarious liability in mind when he made the comments he did about "in the course of employment". I suspect very much he didn't. But Mr Silcock suggests that even if he didn't then he would still have agreed that a deliberate act in contravention of one's employers' orders could still be within the "course of employment".

132. Mr Silcock seeks to draw further support from the example of the chemist used by Jacob LJ. in paragraph 97 of *Pinkava*:

"How then does one ascertain the nature of the employee's duties? "Duty" is the language of obligation. As between the employer and employee the primary source of a duty are the terms of the contract. What is it that he is employed to do must be the key question. That is not the same thing as was suggested by Mr Tritton—what is his day-to-day work? Take for instance a research chemist working on a cancer cure for the last 10 years. Suppose he came up with a cure for arthritis. He could not seriously contend that he owned the invention because he was day-to-day working on a cancer cure. His duty as a research chemist is clearly wider than his day-to-day work."

133. Mr Silcock contends that had the chemist come up with the cure for arthritis even though he had been told not to work in that area, that the invention could still belong to his employer.

134. Mr Alkin response is that vicarious liability gives rise to a very different set of policy principles to that underpinning section 39 and therefore it offers

little assistance in interpreting section 39. I think that must be right however I am with Mr Silcock in that a specific instruction not to do something does not necessarily take that something out of a person's normal duties. Whether it does or doesn't turns on what that person's normal duties were at the time. A design engineer or a chemist employed to invent who comes up with an invention in a field in which he was told not to work may still have made the invention in the course of his duties. It will ultimately depend on how broad those duties are considered to be.

135. In this case the normal duties of Mr Cooke were essentially as a salesman seeking to bring work into the company and as an installation supervisor although it is a little unclear whether, at the time the invention was made, Mr Cooke was still involved with installations. Irrespective of whether he was still involved with installations, it is my view that the invention was not made in the course of those duties.

136. The position of Mr Musk is the same. His normal duties at the time centred on procurement and possibly some installation related fabrication. His duties did not cover developing or improving new or existing systems. Hence the invention was not made in the course of his normal duties.

137. For completeness I would note that given the directions from Mr Killaspy, there can be no suggestion that the invention was made in the course of duties specifically assigned to either Mr Cooke or Mr Musk.

Were the circumstances such that an invention might reasonably be expected to result from the carrying out of his duties?

138. In case I am wrong on the nature of Mr Cooke's and Mr Musk's duties, and in particular if it was part of their duties to develop the Hydramist module then I believe the circumstances were such that an invention might reasonably be expected to have resulted from the carrying out of those duties. This is because Mr Cooke, by his own admission, was a practical person with a particular interest in engineering problems. He used those skills to apparent good effect in solving installation problems. Likewise Mr Musk was a practical person with the ability to solve engineering problems.

Section 39(1)(b)

139. Fireworks also contends that the duties of both Mr Cooke and Mr Musk were such as to give rise to a special obligation to further the interests of Fireworks.

140. I have already considered whether this was the case for Mr Cooke some two years earlier. I found then that his duties were not such that section 39(1)(b) would apply. The position of Mr Cooke at the time that the invention in GB 2479863 A was made seems even clearer since by then Mr Killaspy had returned to Fireworks on a full time basis. Although the balance of Mr Cooke's work had changed from before Mr Killaspy's absence, with more emphasis being on sales, there is nothing to suggest that the nature of his duties or his special obligation to further the interests of Fireworks had

changed. He was not a fiduciary whilst Mr Killaspy was absent and he didn't become one when he returned.

141. Mr Silcock does not suggest that Mr Musk like Mr Cooke was a fiduciary rather he suggests that Mr Musk in his general duty of fidelity to his employer was also put under a special obligation by virtue of his close connection with Mr Cooke. This is analogous to the position of someone being in known receipt of trust funds, for example, in a different context where you have a trustee who acts in breach of trust and then someone assists knowing what they are getting into. The analogy is an interesting one but even if it were accurate then it would still depend on Mr Cooke being a fiduciary which I do not believe that he was. Even if he was then I do not believe that on the evidence before me Mr Musk, who clearly had a lower position within Fireworks, would have fallen within the ambit of 39(1)9b).

Conclusion and order

142. For the reasons outlined above, I have concluded that Mr Cooke has not shown on the balance of probabilities that he was the deviser of the idea of putting the pump and the motor into the housing that is at the heart of GB 2458698 B. It follows that his claim to joint ownership of that patent fails as well.

143. For reasons outlined above I have also concluded that Fireworks has not shown that it is entitled by virtue of section 39 to the invention in patent application GB 2479863. Its claim under section 8 therefore fails.

Costs

144. Both sides were content that costs should be awarded in line with the published scale. In this instance each side has failed in its respective claim and since the two claims were effectively consolidated at a relatively early stage with neither being particularly more onerous than the other it seems only fair to order that each side bears its own costs.

Appeal

145. Any appeal must be lodged within 28 days.

P THORPE