



Neutral Citation Number: [2019] EWHC 3522 (IPEC)

Case No: IP-2018-000103

**IN THE HIGH COURT OF JUSTICE**  
**BUSINESS AND PROPERTY COURTS OF ENGLAND AND WALES**  
**INTELLECTUAL PROPERTY ENTERPRISE COURT**

Royal Courts of Justice, Rolls Building  
Fetter Lane, London, EC4A 1NL

Date: 18/12/2019

**Before :**

**HIS HONOUR JUDGE HACON**

-----  
**Between :**

**ADOLF NISSEN ELEKTROBAU GMBH & CO KG**

**Claimant**

**- and -**

**HORIZONT GROUP GMBH**

**Defendant**

-----  
**Chris Aikens** (instructed by **A.A. Thornton & Co**) for the **Claimant**

**Maxwell Keay** (instructed by **M.J.P. Deans**) for the **Defendant**

Hearing dates: 5-6 November 2019  
-----

**Approved Judgment**

I direct that pursuant to CPR PD 39A para 6.1 no official shorthand note shall be taken of this Judgment and that copies of this version as handed down may be treated as authentic.

.....  
**HIS HONOUR JUDGE HACON**

## **Judge Hacon :**

### **Introduction**

1. The parties to this action are both in the business of electric road traffic signs. They are competitors based in Germany. The defendant ('Horizont') owns UK Patent No. 2,410,366 ('the Patent') which claims an invention entitled 'Mobile warning device for road traffic'. The claimant ('Nissen') seeks to revoke the Patent.
2. Chris Aikens appeared for Nissen, Maxwell Keay for Horizont.

### **The skilled person**

3. In its Particulars of Claim Nissen contended that the skilled person is a designer and manufacturer of mobile warning devices for road traffic. The Defence pleaded that the skilled person is a designer, manufacturer *or* user of such devices. Both skeleton arguments stated that the parties were agreed on the identity of the skilled person, so they apparently felt that there was no difference between them that mattered.
4. The invention claimed in the Patent would be of practical interest to a designer of mobile warning devices for road traffic. Such an individual would work for, or at least with, a manufacturer of those devices and will broadly know how they are made. He or she will also of necessity know how the devices are used since they must be designed to serve the market. The design and use of the devices is highly regulated and it was agreed that the skilled person would be familiar with the relevant regulations.
5. This is a UK patent. It follows that the skilled person will be based in the UK and it is the UK regulations and use of traffic signage in the UK which form part of the skilled person's common general knowledge. I state that obvious point (it was not in dispute) because it came to have some relevance.

### **The Patent**

6. The application for the Patent was filed on 20 January 2004. There is no claim to a priority date.
7. The specification begins by describing a mobile warning device for road traffic that was known in the art. It is a board to be mounted on vehicles, the board having spotlights arranged in a flat pattern to produce images. The images include directional arrows to tell road users to change lane and warning crosses to indicate that the lane is closed. The specification continues:

“In line with traffic regulations, all these patterns are generated in one single colour and as flashing lights. The main colour used is yellow.”
8. The skilled person would notice an oddity about this. Crosses to signal a lane closure, used in fixed traffic warning devices such as those on overhead gantries, are red in the UK, not yellow. The UK regulations require that the crosses are in constant (i.e. not flashing) light and that they are red.

9. I was told that flashing arrows and crosses in yellow are consistent with the German regulations. It seems likely that the specification is derived from a draft created in Germany, although the Patent has no German or any other priority application. I was also told that there is no equivalent patent in force in Germany, but that makes no difference to this dispute.
10. The specification says more about the spotlights used in the prior art devices:

“The individual spotlights that are configured as flashing lights can be halogen lights or LED lights. There are two different designs. The individual LEDs can be furnished with yellow lenses, but they can also emit a yellow light and have transparent, clear lenses.”
11. There follows the consistory section, essentially setting out claim 1. The claim having been set out, the characterizing portion is summarised in the specification this way:

“The warning cross is shown in an additional colour to the flashing directional arrows, and shines constantly.”
12. The specification explains the advantage of this arrangement:

“A mobile warning device will cause an increased level of attention when implemented in this way, because it has an unusual – and thus unexpected – form and colour. This is due to the fact that the (preferably red) warning crosses in constant light have not been mounted on vehicles. If a warning cross shining in an unfamiliar colour now appears on a construction vehicle, trailer or a similar vehicle, it will warn the road user of a particularly dangerous situation, namely of the closing off of a lane or carriageway, in a very emphatic way.”
13. Preferred embodiments are then explained, including:

“... an additional spotlight attached next to each end point of the cross and these four additional spotlights emit a flashing red light by pairs upon activation of the red warning cross.”
14. There follows a passage which appears to acknowledge UK practice:

“The red diagonal cross in connection with the fourfold intermittent flashing system is already familiar to the road users from sign gantries. Usually, it indicates the closing of a lane. When using these signals for mobile warning devices, at first an unfamiliar effect is created that particularly increases the attention level of the road users. At the same time, they receive information which they are familiar with, because the diagonal red cross with the additional flashing lights is a system that is already know from stationary arrangements.”

### **The claims**

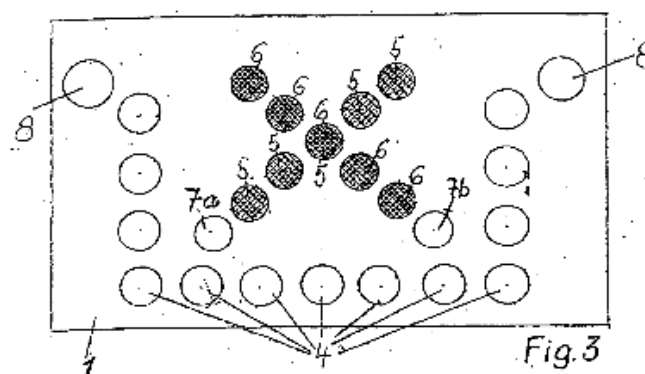
15. Horizont asserted the independent validity of four claims. Although two of them, 4 and 5, include the features of claims 2 (the warning cross is red) and 3 (the position of the cross), nothing turned on those features. I need set out only claims 1, 4, 5 and 6.

1. A mobile warning device for road traffic with a board to be mounted on a vehicle on which strobe lights and warning lights are arranged in a flat pattern and which can be switched on in groups so that they selectively form an illuminated pattern in the form of flashing directional arrows or, alternatively, warning crosses or similar patterns, characterized in that an illuminated warning cross can be optically produced in constant light that differs in colour from the flashing directional arrows.
4. A mobile warning device according to Claim 3, characterized in that an additional spotlight is placed next to each end point of the cross, whereby those four additional spotlights, upon activation of the warning cross that shines in red, emit in pairs a red flashing light, achieved by activating both lamps to the left of the warning cross and both lamps to the right of the warning cross in sequence.
5. A mobile warning device according to Claim 4, characterized in that the additional spotlights allocated to the upper end points of the cross are individually attached to the upper edge of the board, outside the board surface.
6. A mobile warning device according to any one of preceding Claims, characterized in that the warning lights include lights for the emission of both constant light and flashing light configured as LED spotlights with separate LED arrays for permanent light and flashing light respectively.

## Construction

### *A mobile warning device*

16. There was disagreement about the central term 'a mobile warning device'. Mr Keay submitted that it was a term of art, meaning a vehicle mounted sign which is used on a vehicle in motion behind a mobile work site. His point was that the vehicle must be in motion during use of the device and therefore claim 1 excludes a device which is merely mobile in the sense that it can be moved from place to place or in the sense that it can be used while on a stationary vehicle.
17. Mr Keay said that this definition emerges from the Patent specification and was confirmed by expert evidence. He relied in particular on Figure 3 of the Patent and submitted that it would be immediately clear to a skilled person looking at it that this is a vehicle mounted sign which is used on a live carriageway behind a mobile work site. This is Figure 3:



18. The description of Figure 3 in the specification states only that it shows the arrangement of lights of an embodiment of the invention. I do not find any support for Mr Keay's definition in Figure 3 or elsewhere in the Patent.
19. Dr Meseberg addressed his understanding of the term 'mobile warning device' in his report (where he used the abbreviation MWD):

“[39] [The skilled person] would know that a MWD is necessarily mobile. It will be mounted on a trailer for a work vehicle itself so that it can serve its warning purpose while actually being driven slowly along a live lane of carriageway ...”
20. He was not cross-examined on this statement. Mr Knight was cross-examined on the subject and said that 'mobile warning device' was neither a term of art nor even a term which was ever used by those in this field. 'Advance warning sign' or 'chapter 8' are terms used. (There is a regulatory explanation for 'chapter 8' which doesn't matter.) Mr Knight agreed that in the context of traffic management a mobile sign is one that is used when mounted on a vehicle, but not that the vehicle must be in motion when the sign is used.
21. Even though Dr Meseberg was not challenged on his understanding of the term 'mobile warning sign', I cannot rely on that evidence because he is not familiar with practice in the UK and the terms used in this country. He gave no reason for the assertion in his paragraph 39 quoted above. I think it was just that – an assertion without any basis of knowledge about what those in the field in the UK say. I accept Mr Knight's evidence that the UK-based skilled person would not ever have used the term 'mobile warning sign'. I also accept that the word 'mobile' in this context would be taken to mean that the device is vehicle-mounted when in use, but the vehicle need not necessarily be in motion during use of the device.
22. I also find that the conventional understanding of 'for' would apply to a 'mobile warning device for road traffic'. The device must be suitable for directing road traffic.

### **The grounds of alleged invalidity**

23. The only alleged ground of invalidity was lack of inventive step over each of three items of prior art. They were:
  - (1) German Utility Model No. DE 297 06 007 ('DE007') (all argument was conducted by reference to an agreed translation);
  - (2) United States Patent No. 6,590,502 ('Pederson'); and
  - (3) The advertisement, offer for sale and sale of the Nissen *Fahrbare Vorwarntafeln mit LED-Wechselverkehrszeichen* product No. 129-265 ('the Nissen Board').

### **The law**

24. It was common ground that the issue of inventive step should be assessed using the approach explained in *Pozzoli SpA v BDMO SA* [2007] EWCA Civ 588; [2008] RPC 37, at [23].

25. Mr Aikens drew my attention to the judgment of Lewison J in *Ivax Pharmaceuticals UK Ltd v Akzo Nobel BV* [2006] EWHC 1089 Ch; [2007] RPC 3, on the approach to inventive step in a heavily regulated field such as the one in the present case. Lewison J summarised the effect of the earlier judgment of Jacob J at first instance in *Richardson-Vicks Inc's Patent* [1995] RPC 568 and that of Aldous LJ on appeal, [1997] RPC 888. Like *Ivax*, *Richardson-Vicks* was concerned with pharmaceutical products. Lewison J said:
- “It seems to me, therefore, that obstacles to regulatory approval of pharmaceutical products are not relevant obstacles to an obviousness attack. It is also worth drawing attention to the clear distinction drawn by Aldous LJ between obstacles to manufacture on the one hand, and obstacles to lawful sale on the other. Obstacles to lawful sale are not relevant to obviousness.”
26. Mr Keay relied on this passage in the judgment of Kitchin J in *Eli Lilly and Co v Human Genome Sciences, Inc* [2008] EWHC 1903 (Pat); [2008] RPC 29, at [295]:
- “I accept that the skilled person must be deemed to consider any piece of prior art properly and in that sense with interest. This emerges clearly from the decision of the Court of Appeal in *Asahi Medical Co Ltd v Macopharma (UK) Ltd* [2002] EWCA Civ 466 and is necessary to prevent a patent from depriving the public of their right or make or do anything which is merely an obvious modification of what has been done or published before. But the law does not deem the skilled person to assume the prior art has any relevance to the problem he is addressing or require him to take it forward. Having considered it, he may conclude that it is simply not a worthwhile starting point and so put it to one side.”
27. The facts in *Eli Lilly* were that the prior art in question was a polynucleotide sequence in a database which was accessible to the public at the priority date, but it had not been characterised and was indistinguishable from 390,000 other sequences of that type in a database. Kitchin J rejected the hypothesis that the skilled person would start with the particular sequence relied on. However, I do not understand him to have meant that the usual approach of assuming that the prior art has been drawn to the attention of the skilled person who, at the relevant time, would have considered it carefully, was being cast aside or that there can be exceptions to such an approach. His point, as I understand it, was that by picking out the particular sequence in question as the cited prior art, the party seeking to revoke the patent had, in effect, wrongly ensured that the bulk of the hypothetical work of the skilled person in assessing obviousness had already been done. Or, to put it another way, the key qualities of the particular nucleotide sequence were not known at the relevant date and therefore that sequence was not *individually* part of the state of the art. One way of adopting the usual approach, therefore, was to treat all 390,000 uncharacterised sequences as the starting point. The hypothesis would have been that all these sequences were put under the nose of the skilled person. The question was whether it was obvious to take the step from there to the claimed invention. For this reason, Kitchin J considered obviousness by reference to, among other things, evidence on screening polynucleotide sequences.
28. It is clear from the passage from *Eli Lilly* just quoted that whether the skilled person takes the view that an item of prior art is a promising or unpromising solution to the problem, he or she will consider it with exactly the same care and interest.

29. Moving away from the particular facts of *Eli Lilly*, it is possible for the subject matter of the prior art to be too remote from the nature of the problem to suggest the claimed solution to the skilled person. Sometimes such prior art is characterised as being not a worthwhile starting point. But this sort of remoteness is really just one of many alternative reasons why a skilled person may, having carefully considered the prior art, fail to spot the invention.
30. In the present case it was said of one of the cited items of prior art that the skilled person would have thought that implementing its content would result in making a product that was dangerous to users and that therefore the prior art would have been of no interest as a starting point. I think that characterising prior art as a good or bad starting point can be a distraction. Whatever the prior art may be, the skilled person is invariably required to start with it in the sense that he or she is deemed to have considered it carefully. Having done so, the skilled person either will or will not find the invention in suit technically obvious.
31. The perception of a dangerous outcome might be relevant on certain facts. To take an example, a line of investigation may not be pursued by the skilled person because of expected dangers involved and this might make a difference to the obviousness of the end-product of such an investigation. However, such circumstances must be distinguished from a situation in which the skilled person believes a variant of the prior art to be technically obvious but of limited or no commercial value because the result may be dangerous or otherwise unattractive to users. Such unattractive qualities would not make the variant any less obvious from a technical standpoint. The unattractive qualities may affect whether the variant falls within a claim, but that is a separate matter.

### **The witnesses**

32. I heard evidence of fact from Markus Karwin, a development engineer employed by Nissen, regarding the prior disclosure of the Nissen Board. Mr Karwin gave clear answers to all questions put to him.
33. The two other witnesses were experts. Gary Knight gave evidence for Nissen. He was from 1997 a traffic management operator for Trek Highway Services Limited working on signs used on roads in London. His principal job was to drive an impact protection vehicle ('IPV'). Mr Knight's subsequent employment included a period at Mervyn Lambert Plant Ltd where he was involved in a project for Nissen in 2012 to design signage for mounting on an IPV. Mr Knight was a very good witness who was careful as to the subjects about which he could state an opinion and those about which he could not.
34. Dr Hans Meseberg was Horizont's expert. He has over 40 years' experience in traffic signs and lighting. Between 1972 and 2006 he worked for the German Federal Highways Research Institute and was either a member of, or chaired, committees of DIN (the German Standardisation Institute), FGSV (the German Road and Transportation Research Association) and CEN (the European Committee for Standardization). Since 2006 Dr Meseberg has been a freelance consultant. Dr Meseberg was generally a good witness, although occasionally keen to argue Horizont's case.

35. Because the qualifications and experience of the two experts differed, the matters on which they could give authoritative evidence did not completely overlap. Unlike Dr Meseberg, Mr Knight knew about the practice of those working in the UK in relation to road traffic signs, including the terms used at the filing date. Dr Meseberg's background meant that he knew more about the design and qualities of traffic signboards.

### **Common general knowledge**

#### *LEDs*

36. Mr Knight said that at around the filing date of the Patent in January 2004, LED lamps for signboards were being introduced in place of halogen lamps because the former were more reliable. His evidence was that the LEDs could be grouped within a spotlight, behind a lens. This was consistent with a brochure published by Horizont. It was a Swiss brochure, but the experts both treated it as if it were a sound guide to what was known in the UK in January 2004. The date March 2000 appeared on one page, which was taken to be its date of publication, almost 4 years before the Patent's filing date. The brochure referred to 'new' LED spotlights for use in traffic signs.
37. Mr Knight said that by January 2004 there was talk of LED spotlights which could emit alternatively amber or red light, but he could not recall seeing one by that date.
38. One way of creating a two-colour spotlight was by installing two sets of single colour LEDs within it. Mr Knight thought that because the idea of two-colour LED spotlights was known in January 2004, a designer of traffic signboards (which did not include him) would have known how to achieve that result as part of his common general knowledge.
39. Dr Meseberg gave evidence in cross-examination, in relation to one of the items of prior art, that it would have been technically easy in January 2004 to use LEDs of different colours within one spotlight. This is consistent with Mr Knight's expectation. I find that Mr Knight's expectation was correct. The concept of an LED spotlight which could emit alternative colours and a way to create it were part of the common general knowledge.

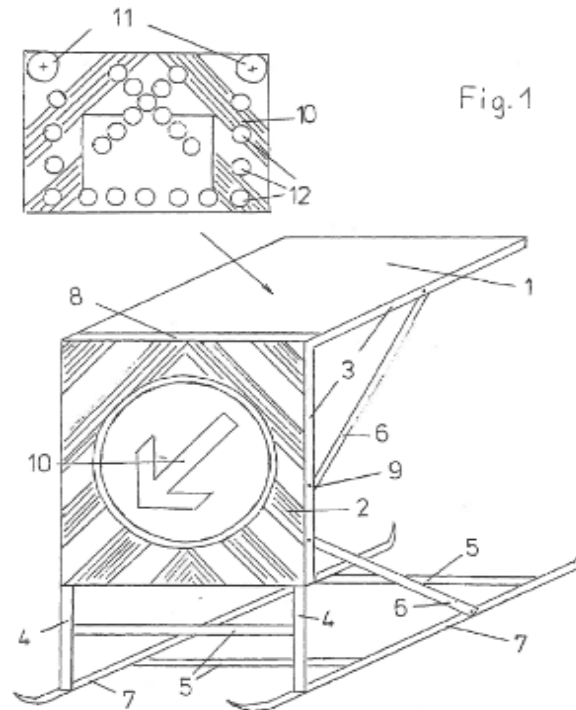
#### **DE007**

40. The abbreviated number given to this Utility Model was more glamorous than its content. DE007 begins:

“The invention relates to a transportable signboard for barriers, warning signs, or traffic signs, henceforth simply ‘signboard’, in particular for use at work sites on roads and expressways, and to a mobile signboard device having such a signboard.”

41. The prior art is discussed, in particular traffic signs permanently fastened on to vehicles or trailers. DE007 points out that maintaining the vehicles can be expensive. The idea of the invention is to put signboards on to a skid-mounted undercarriage. The signboard is easily loaded and unloaded from a vehicle so that fewer vehicles are needed to transport many different types of signboard. Figure 1 illustrates the idea:





42. Although the advantage would be maximised by offloading the signboard for use at a site, thereby allowing the vehicle to be used to transport other signboards, DE007 is clear that the signboard can be used while on the vehicle in motion behind a mobile work site:

“Moreover, it is possible for the signboards on the transport vehicle to be driven behind a mobile work site.”

43. The transport vehicle can be either a motor vehicle or a trailer. The upper diagram of Figure 1 shows a display panel, explained in the specification this way:

“On the top panel part 1, there are two flashing warning lights 11 as well as several flashing lights 12, which can be interconnected to represent a leftward or rightward pointing arrow or a diagonal cross.”

44. Mr Keay made the following points. First, the main thrust of DE007 was a means to transport the signboard easily from place to place and that in use it would be stationary. It therefore fell outside his definition of ‘mobile warning device’.

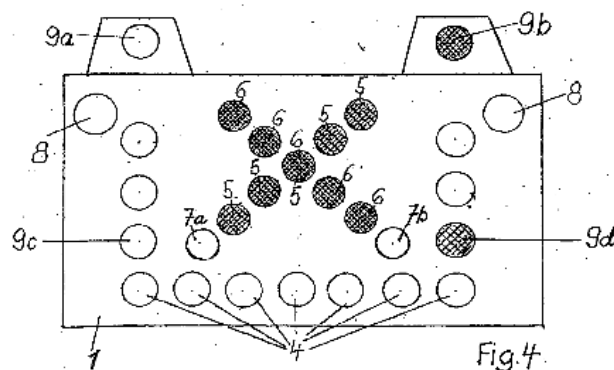
45. Secondly, he pointed to the experts’ misgivings about the usefulness of an embodiment of DE007. Dr Meseberg thought that the idea of using it on a moving vehicle was faintly ridiculous. Mr Knight accepted that it could move around on its skids while the vehicle was in motion, which would be very dangerous if it happened. But he did not accept that it would be unsafe to use the device. It would be the driver’s responsibility to ensure that the device was secured, although he could not rule out that there would still be a risk. Mr Knight doubted that such a device would have been approved for use in the UK if used in motion.

46. Thirdly, DE007 did not show a constant red cross.

47. Fourthly, Mr Knight said that the only things in DE007 that would interest a skilled person in January 2004 were the chevrons on the signboard and the skids.
48. In short, the differences between DE007 and claim 1 of the Patent were that (a) it was not a mobile warning device and (b) it did not display a constant red cross. It would not have been obvious to modify DE007 to incorporate those two features because DE007 would have been dismissed as a starting point for modification because it was unsafe to users and unlikely to satisfy the UK regulations.
49. Mr Keay's difference (a) falls away because I do not accept the limited definition of 'mobile warning device' on which it depends and even if I had, DE007 discloses, by way of an option, use of the signboard on a vehicle in motion.
50. Mr Knight's answer regarding what in DE007 might have interested the skilled person does not establish what was obvious over DE007.
51. The only relevant question is whether it would have been obvious to modify DE007 so that it could display a constant red cross as well as and by way of alternative to, flashing yellow arrows.
52. If it was technically obvious to adapt DE007 to make a device that falls within claim 1 of the Patent, that does not cease to be the case because the adapted product would be unsafe in use or would not meet regulatory approval. Also, while Mr Knight accepted the possibility of a risk if DE007 were used while in motion, he expected that the driver would fix it securely. Furthermore this risk, such as it was, depended on DE007 being used in motion. As I have said, claim 1 is not limited to devices which are used only in motion.
53. Mr Knight's evidence was that it would be obvious to adapt DE007 to have it show a constant red cross as well as flashing yellow arrows. His reason was simple: DE007 displayed a cross in a manner which was not conventional in the UK. The obvious adaptation to go for would be one which displayed the cross in a manner familiar to UK road users from signs on overhead gantries and from other stationary signs: a constant red cross.
54. Dr Meseberg's principal points in his report were that the skilled person would not think it worthwhile starting with DE007 and that it would not have gained regulatory approval. He also said that DE007 did not disclose use of the device on a vehicle. This last point was clearly incorrect. DE007 expressly disclosed this as an option. In cross-examination he continued to be dismissive of DE007. For the reasons discussed, I do not believe that the skilled person's reservations about safety risks or regulatory problems, to the extent they existed, were relevant to the question whether it was technically obvious to adapt DE007 to create something that would fall within claim 1 of the Patent.
55. I accept Mr Knight's evidence that the UK-based skilled person would think it obvious to modify DE007 to display a constant red cross or alternatively flashing yellow arrows because those were conventional signals in this country.
56. I have found that the skilled person would have known how to achieve this as part of his common general knowledge, using LEDs of two colours in the spotlights. Mr

Aikens said it went further and that Horizont had admitted that it was part of the common general knowledge of the skilled person to use bi-coloured LEDs, i.e. single LEDs capable of emitting two alternative colours. That is not how I read the Amended Defence. However, claim 1 of the Patent is obvious over DE007.

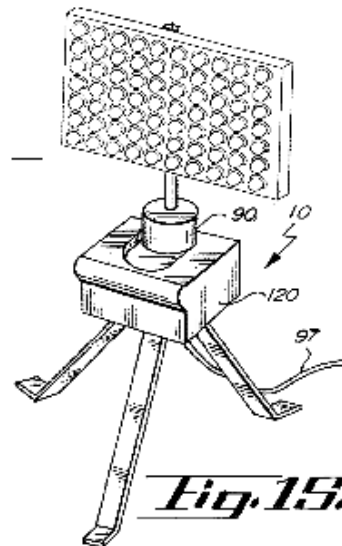
57. The additional feature of claim 4 is that at the end of each arm there is an additional spotlight. Upon activation, the four extra spotlights flash in pairs. Mr Knight said that it would be obvious to add these spotlights because to do so would implement an arrangement used on gantries and as required by one of the UK regulations. The arrangement would have been familiar to UK road users. I accept that evidence. It was not in dispute that the skilled person would have found it technically easy to achieve this arrangement. Claim 4 is obvious.
58. Claim 5 requires that the two upper additional spotlights of claim 4 are individually attached to the upper edge of the board, outside the board surface. This was described as the 'frog eyes' configuration because of its appearance:



59. Mr Keay's argument was that there was no evidence that the frog eyes idea had ever been implemented. This is what Dr Meseberg said, but it does not establish that it was not obvious to have frog eyes, only that no manufacturer seems to have wanted to make such a thing, possibly for marketing reasons. Mr Knight said in his report that if the board was not big enough to accommodate the extra spotlights at the top, the two obvious solutions were to increase the size of the board or mount the spotlights on protrusions, as shown in Figure 4. He was not challenged on this. I accept Mr Knight's evidence. Claim 5 lacks inventive step.
60. Claim 6 requires that the warning lights are LED spotlights with separate LED arrays for permanent and flashing light. Given what I have found above, claim 6 lacks inventive step.

### *Pederson*

61. Pederson discloses an LED warning signal light comprising an array of light sources configured on a support. It provides various coloured light signals for use by an emergency vehicle, typically such as found on the roof of a police vehicle or ambulance. A device of that type would not fall within claim 1 of the Patent. However, in one embodiment the device can be separated from the vehicle and mounted on a support, remaining connected by cable to the vehicle or other power source:



62. It was not in dispute that such a device could be programmed to display a wide variety of signals, including a constant warning cross or alternatively flashing directional arrows. It was also common ground between the experts that the devices as shown in Pederson would not produce sufficiently visible signals to function as a device suitable for directing road traffic. The device would have to be scaled up and put on a vehicle.
63. Dr Meseberg's evidence was that if the device was made large enough to provide signals sufficiently visible and distinct to be suitable for directing road traffic, its size would be impractical to be used when mounted on a vehicle. This was a matter which fell more within Dr Meseberg's expertise than Mr Knight's, as Mr Knight acknowledged.
64. I accept Dr Meseberg's evidence. It would not have been obvious to modify Pederson to make an embodiment within claim 1 of the Patent. None of the claims of the Patent lack inventive step over Pederson.

#### *The Nissen Board*

65. Nissen relied on the prior use of one of its own traffic warning devices. Horizont did not deny that the Nissen Board had been made available to the public before the Patent's filing date. Nissen relied on a particular configuration, given the number 225/228, which had a yellow LED display. Mr Karwin gave evidence about it and his witness statement included this image of 225/228, which in use would be mounted on to the back of a trailer:



66. Mr Karwin said that unless the customer specified otherwise, the product was supplied with the full library of possible signs, which could include a cross or flashing yellow arrows.
67. Mr Keay argued that it was not within claim 1 of the Patent for two reasons. First, it was stationary in use. I have rejected the construction of claim 1 on which this argument depends. Secondly, because the Nissen Board had only yellow LEDs, it could not be programmed to display a red cross.
68. Mr Knight said in his report that the (UK based) skilled person would regard the Nissen Board as being of little use if it could display signs in yellow only. Therefore it would have been obvious to incorporate red LEDs to allow the optional display of a red cross. He was not challenged on this. In cross-examination Dr Meseberg accepted that there would have been no technical difficulty in modifying the Nissen Board to show a constant red cross or alternatively flashing yellow arrows.
69. I think the position on inventive step is much the same as in relation to DE007. The skilled person would have actively wanted a device which created signs familiar to UK road users, in particular a constant red cross. There was no technical barrier preventing the skilled person from being able to achieve that goal, along with flashing yellow arrows. Claim 1 lacks inventive step over the Nissen Board.
70. The arguments with regard to claims 4, 5 and 6 were the same as those advanced in respect of DE007 save, Mr Keay added, that claim 6 requires spotlights and the Nissen Board does not group its LEDs into spotlights. This, I assume, was taken from what Dr Meseberg had said in his report. But in cross-examination Dr Meseberg agreed that if the skilled person wanted to improve visibility, it could be easily done by using the LEDs in a spotlight arrangement.
71. All of the claims of the Patent lack inventive step over the Nissen Board.

## **Conclusion**

72. The Patent is invalid since it lacks inventive step.