

**OPINION UNDER SECTION 74A**

Patent	GB 2483109 B
Proprietor(s)	Purple Line Limited
Exclusive Licensee	
Requester	Maypole Limited
Observer(s)	
Date Opinion issued	20 July 2016

**The request**

1. The comptroller has received a request from Maypole Limited (the requester) to issue a validity opinion under section 74A(1)(b) in respect of patent GB 2483109B (the patent) in the name of Purple Line Limited (the proprietor). The request questions the validity of claims 1 to 28 on the basis that they lack an inventive step
2. The Patent has a filing date of 27 August 2010. It was granted on 26 November 2013 and remains in force.
3. No observations were received.

**Invention**

4. The invention relates to a wheel clamp for immobilising a vehicle and in particular a wheel clamp that acts as a theft deterrent for a towable vehicle such as a caravan. Figures 1 and 6 of the patent are reproduced as figures 1 and 2 below. From figure 2 in particular, it will be noted that the wheel clamp of the patent is quite compact, especially in relation to prior art wheel clamps of the type commonly used to immobilise illegally parked vehicles.
5. The main features of the wheel clamp of the patent are locking means (20, 22) which engage with the hub of the wheel through one of the wheel mounting apertures and an immobilising arm (14) which is adapted to extend through a hole in the wheel. The locking means comprises a pair of cooperating locking members (20, 22), one of which (20) is adapted to replace one of the normal wheel mounting bolts. The locking means and immobilising arm are joined by a plate (12) referred to in the patent as a shield.

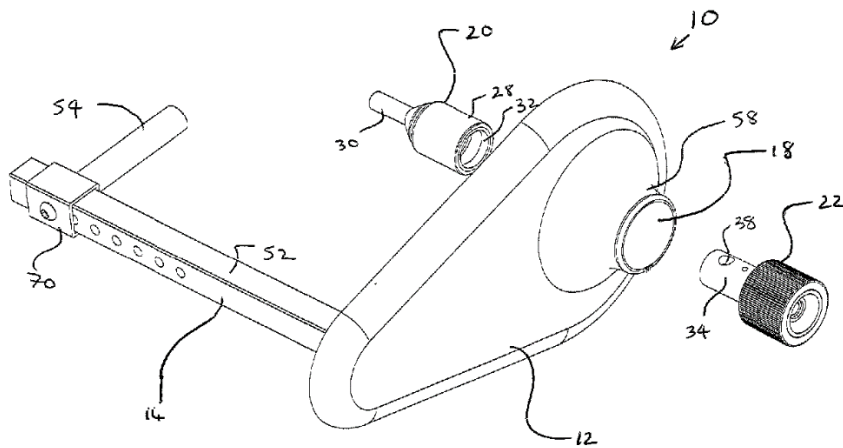


Figure 1 - Figure 1 of the patent showing the components of the wheel clamp

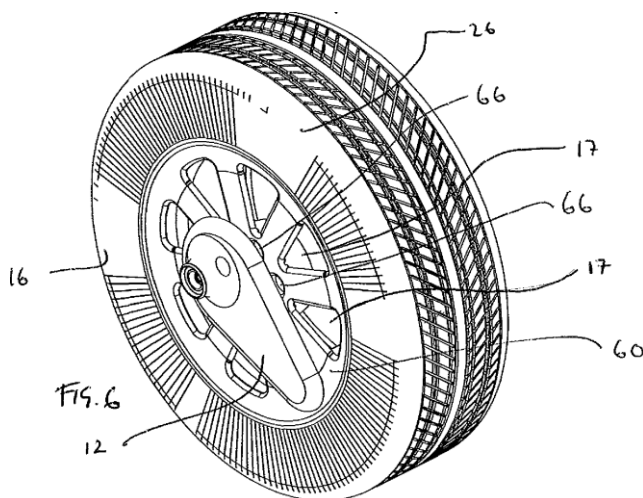


Figure 2 - Figure 6 of the patent showing the clamp installed on a vehicle wheel

## Claim Construction

6. Before deciding the question of novelty it is necessary to properly construe the claim following the well known House of Lords authority on claim construction in *Kirin-Amgen*<sup>1</sup>. This requires that I construe the claims purposively, interpreting them in the light of the description and drawings, to decide what a person skilled in the art would have understood the patentee to have used the language of the claim to mean.
7. Claim 1 of the patent reads as follows (with my formatting):

1. A wheel clamp for securement to a wheel of a wheeled vehicle, the wheel clamp comprising

**locking means** to lock the clamp to the vehicle, the locking means including a shaft which extends through a mounting aperture of the wheel and secures the wheel clamp to a rotatable hub of the vehicle,

the wheel clamp further comprising

**a shield** which extends from the locking means and is arranged, in use,

<sup>1</sup> *Kirin-Amgen v Hoechst Marion Roussel and others* [2005] RPC 9.

*to locate adjacent to a first face of the wheel,*

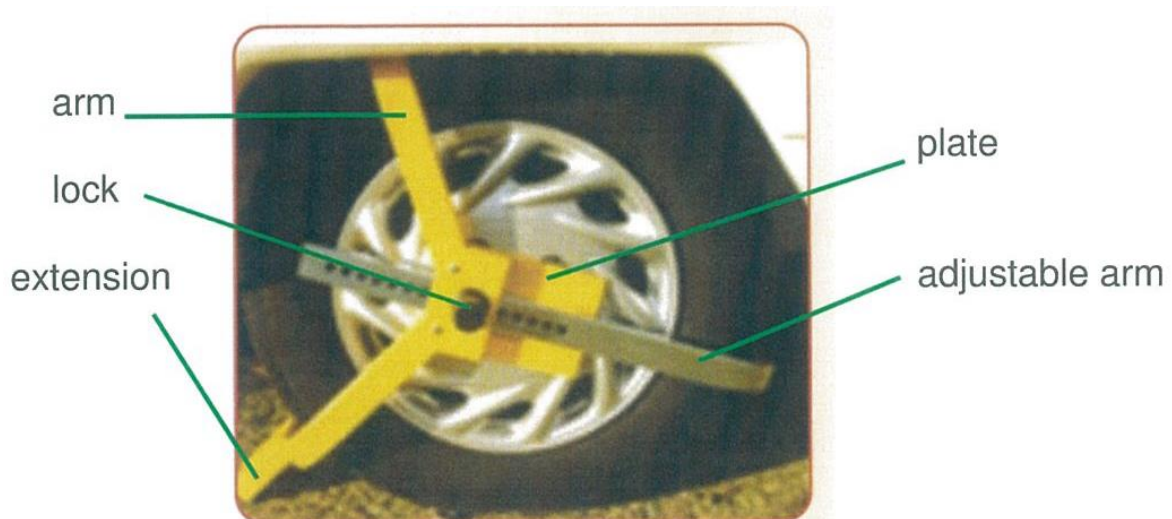
*the wheel clamp comprising*

***an immobilising arm** which extends through an opening in the wheel from the first face of the wheel to a second face of the wheel and wherein rotation of the wheel causes rotation of the wheel clamp until the immobilising arm abuts a part of the vehicle.*

8. The locking means and the immobilising arm are straightforward to construe except that the immobilising arm needs to be construed as being adapted *in use* to extend through an opening in the wheel, etc.
9. However, what constitutes a shield is not clear based on the claim alone and I need to consider further how the skilled person would interpret this feature.
10. The skilled person is considered to be a designer of wheel clamps. As part of his common general knowledge he would know that conventional wheel clamps have a plate for preventing access to, i.e. shielding, the wheel nuts to ensure the wheel clamp cannot be defeated by removing the wheel from the vehicle.
11. Accordingly I consider that the skilled person would construe the term shield to require that there is some adaptation to restrict access to at least one of the wheel mounting means.

## **Prior art**

12. The requester sets out their case based on the common general of the skilled person and provides as an example the following illustration of a conventional wheel clamp:



*Figure 3 - Example of conventional wheel clamp provided by requester*

13. Based on this example, the requester sets out the following features which would form part of the common general knowledge of the skilled person.
14. Firstly, the use of a plate to restrict access to the wheel mounting nuts/bolts and

which may be described as a shield.

15. Secondly, the presence of an immobilising arm.
16. Thirdly, locking means comprising a shaft receivable in a bore. In the example provided it should be noted that the lock engages only with the adjustable arm and it does not engage with the vehicle wheel mounting bolts.
17. I am satisfied that in general terms these features would be part of the common general knowledge of the skilled person. However, as admitted by the requester (paragraph 9), I do not consider it part of the common general knowledge at the filing date of the patent to lock the wheel clamp to the wheel hub via one of the wheel mounting apertures. Nor do I consider it part of the common general knowledge to pass the immobilising arm through a hole in the wheel.
18. The requester further states that it is these latter features which distinguish claim 1 from the common general knowledge. I also consider that this is generally correct.
19. In relation to these latter features, the requester has provided further prior art which show these features individually. In particular, Exhibits B and C, attached to the request, show examples of wheel clamps which lock to the wheel hub and Exhibits D to F show examples of wheel clamps which have an immobilising arm passing through a hole in the wheel.
20. The requester's main argument is that the claims of the patent relate to a collocation and are therefore two separate inventions and that they lack an inventive step based on common general knowledge combined with the locking means shown in Exhibits B and C and the immobilising arm of Exhibits D to F.

## Collocation

21. The requester has suggested that the features of claim 1 relate to a collocation and they are therefore directed to two separate inventions. I must determine this issue before considering further the inventiveness of the claim 1 as set out by the House of Lords in *SABAF SpA v MFP*<sup>2</sup>:

*26. The EPO Guidelines say that "the invention claimed must normally be considered as a whole". But equally, one must not try to consider as a whole what are in fact two separate inventions. What the Guidelines do is to state the principle upon which you decide whether you are dealing with a single invention or not. If the two integers interact upon each other, if there is synergy between them, they constitute a single invention having a combined effect and one applies section 3 to the idea of combining them. If each integer "performs its own proper function independently of any of the other", then each is for the purposes of section 3 a separate invention and it has to be applied to each one separately...*

22. The relevant part of the EPO guidelines quoted with approval in this case states:

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<sup>2</sup> SABAF SpA v MFI Furniture Centres Ltd [2005] RPC 10.

### 9.5 Combination vs juxtaposition or aggregation

*The invention claimed must normally be considered as a whole. When a claim consists of a combination of features, it is not correct to argue that the separate features of the combination taken by themselves are known or obvious and that 'therefore' the whole subject-matter claimed is obvious. However, where the claim is merely an 'aggregation or juxtaposition of features' and not a true combination, it is enough to show that the individual features are obvious to prove that the aggregation of features does not involve an inventive step. A set of technical features is regarded as a combination of features if the functional interaction between the features achieves a combined technical effect which is different from, e.g. greater than, the sum of the technical effects of the individual features. In other words, the interaction of the individual features must produce a synergistic effect. If no such synergistic effect exists, there is no more than a mere aggregation of features...*

23. The requester claims that the distinguishing features, namely the locking means which locks to the wheel hub via a wheel mounting aperture and the immobilising arm which extends through an opening in the wheel, do not interact with each other and there is no synergy between them. Accordingly they represent separate inventions. In particular, the requester argues as follows:

*11. It is clear that there is no interaction or synergy between the two distinguishing features. The first of these features distinguishes from the common general knowledge by securing the wheel clamp to the rotatable hub rather than to some other structure. The second of these features distinguishes from the common general knowledge by having an immobilising arm which passes through the wheel rather than around the wheel, it is not stated what advantages either of these distinguishing features provides, but it is clear that they are independent of each other.*

24. I disagree with requester's assessment and, in particular I consider that there is a synergistic effect and that this synergistic effect is evident from the specification as filed.
25. In particular, the combination of locking to the wheel hub and having the immobilising arm pass through a hole in the wheel enables the wheel clamp to be particularly compact. The compact nature of the wheel clamp of the patent is evident by comparing figures 2 and 3 above. By locking the wheel clamp to the hub there is no need to provide *some other structure* to lock it to, thereby reducing the number of components and reducing its size. Similarly, passing the immobilising arm through the wheel reduces its size. These advantages are set out in the 'Background to the Invention' on page 1 of the description:

*Conventional wheel clamps can be used on caravan wheels but such clamps may be large, heavy and cumbersome to fit. In addition, such wheel clamps may comprise numerous detachable components which may easily be lost or misplaced. Accordingly, the physical size and number of components may deter or prevent users from always using the wheel clamps or transporting the*

*wheel clamps for use to the final destination.*

*It is an aim of the present invention to overcome at least one problem associated with prior art ...*

26. The requester has suggested that, following the Patents County Court decision in *Environmental Recycling Technologies PLC v Upcycle Holdings Limited*<sup>3</sup>, the proprietor cannot rely on any synergy or interaction between the two distinguishing features because none is stated in the patent.
27. However, this seems to be too narrow an interpretation of the case law, the relevant paragraph of the decision stating (my emphasis):

*82. In my judgement there is less between Mr Howe's submission and the third point [that if synergy is relied on it must be described in the specification] arising from Glaxo<sup>4</sup>, Richardson Vicks Inc.'s Patent<sup>5</sup> and Generics v Lundbeck<sup>6</sup> than might appear. **If as a matter of fact a skilled reader of the specification sees what the interrelationship between parts or features described is then that interrelationship has been disclosed.** However, the fact that two features may have a relationship which although unstated, is itself obvious, will have to be kept in mind when considering the prior art. On the other hand if, on reading the patent, it is not apparent what the relationship between two features is, then it seems to me the case falls into the territory of the Glaxo etc. cases. There is no legal principle which distinguishes between pharmaceutical and mechanical patents.*

28. In my view, it is apparent that the relationship between the two features is that they provide a compact yet effective wheel clamp. Whilst this particular attribute of the combination of features may not be explicitly stated, the case law does not require it to be so long as it is apparent. Accordingly I consider that there is a relationship between the two features such that they are not independent and the invention is not a collocation.
29. I will in any case go on to consider whether claim 1 is inventive or not having regard to the applicant's arguments, but on the basis that it is not a collocation.

## **Inventive step**

30. To determine whether or not an invention defined in a particular claim is inventive over the prior art, I will rely on the four step test established in *Pozzoli*<sup>7</sup> which reformulated the well-known *Windsurfing*<sup>8</sup> test. The Pozzoli steps are as follows:

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<sup>3</sup> *Environmental Recycling Technologies PLC v Upcycle Holdings Limited* [2013] EWPC 4.

<sup>4</sup> *Glaxo Group's Patent* [2004] RPC 43; paragraph 114.

<sup>5</sup> *Richardson Vicks Inc.'s Patent* [1995] RPC 568.

<sup>6</sup> *Generics v Lundbeck* [2007] RPC 32; paragraph 237. Reversed on other grounds in higher courts.

<sup>7</sup> *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588

<sup>8</sup> *Windsurfing International Inc. v Tabur Marine (GB) Ltd.* [1985] RPC 59

- (1)(a) Identify the notional “person skilled in the art”;
- (1)(b) Identify the relevant common general knowledge of that person;
- (2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;
- (3) Identify what, if any, differences exist between the matter cited as forming part of the “state of the art” and the inventive concept of the claim or the claim as construed;
- (4) Viewed without any knowledge of the alleged invention as claimed, determine whether those differences constitute steps which would have been obvious to the person skilled in the art.

- 31. I have dealt with the skilled person and some of their common general knowledge above. As will become apparent, the requester’s argument is based largely on common general knowledge and further consideration of the precise scope of this is made below.
- 32. Based on how I have construed claim 1, I consider the inventive concept of claim 1 can be set out as follows:

*A wheel clamp for a vehicle, the wheel clamp comprising*

***locking means** which extends through a mounting aperture of the wheel and secures the wheel clamp to a rotatable hub of the vehicle,*

***a shield** which extends from the locking means to shield access to a wheel mounting means, and*

***an immobilising arm** which in use extends through an opening in the wheel.*

- 33. Step 3 of Pozzoli requires that I identify the differences between the state of the art and the inventive concept, and step 4 requires that I consider whether these differences are obvious or not. I shall consider these step together as necessary.
- 34. Somewhat unusually the requester has made their main case on the basis that the state of the art is the common general knowledge of the skilled person, and that the differences between this state of the art and the invention of claim 1 are obvious in view of the prior art devices illustrated in Exhibits B to F at least.
- 35. Given this starting point, it seems appropriate to consider the following warning made by Floyd J in *Ratiopharm v Napp*<sup>9</sup> when dealing with obviousness over common general knowledge alone:

*158. Fourthly, allegations of obviousness in the light of common general knowledge alone need to be treated with a certain amount of care. They can*

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<sup>9</sup> *Ratiopharm GmbH/Sandoz Ltd v Napp Pharmaceutical Holdings Ltd* [2008] EWHC 3070 (Pat)

*be favoured by parties attacking the patent because the starting point is not obviously encumbered with inconvenient details of the kind found in documentary disclosures, such as misleading directions or distracting context. It is vitally important to make sure that the whole picture presented by the common general knowledge is considered, and not a partial one.*

36. This warning, regarding the dangers of selectivity in deciding what the common general knowledge is, was elaborated upon by the Hearing Officer in *Maxluck Biotechnology's Application*<sup>10</sup> as follows:

*11. However, when deciding what is common general knowledge, one cannot just take those parts of it that support (or rebut) the objection that is being made. To do so opens oneself up to an accusation of ex post facto selection. The notional skilled person comes armed with all the common general knowledge and cannot pick and choose selectively with the benefit of hindsight. Some aspects of the common general knowledge may lead the skilled person from the prior art towards the inventive concept; but equally other aspects of common general knowledge may lead him away from the inventive concept...*

37. In this regard, I note that the majority<sup>11</sup> of the evidence presented by the requester shows wheel clamps which have an immobilising arm which extends beyond the circumference of the wheel so that it can contact the ground as the wheel turns. This ground engaging arm seems to be largely responsible in the prior art for immobilising the vehicle by preventing complete rotation of the wheel. Accordingly, on this evidence I consider that the common general knowledge is not just that wheel clamps comprise an immobilising arm, but that they comprise an immobilising arm which extends beyond the periphery of the wheel and the tyre to contact the ground to prevent rotation of the wheel. As part of the common general knowledge this is considered to teach away from the inventive concept of having an immobilising arm which passes through a hole in the wheel.

38. The warning regarding relying on common general knowledge alone in *Ratiopharm v Napp* was further elaborated upon by Birss J in *Accord Healthcare v Medac*<sup>12</sup>:

*121. Normally the person attacking validity will rely on a particular concrete document or well defined prior use as a starting point. The fact that such a concrete item of prior art may be part of the common general knowledge is not the point. That is different from an attack based on common general knowledge alone.*

*122. Many inventions involve a combination of known features. However, a combination of features, all of which individually were common general knowledge, can give rise to a valid patent claim if that combination is new and non-obvious. Patent trials are inevitably ex post facto and a key problem is to identify and avoid hindsight. Combinations of features can pose a*

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<sup>10</sup> *Maxluck Biotechnology's Application* BL O/130/10.

<sup>11</sup> The only exceptions being DE 202005001646 U1, US 2004/0089036 and US 6941780B1.

<sup>12</sup> *Accord Healthcare Ltd v Medac Gesellschaft für Klinische Spezialpräparate mbH* [2016] EWHC 24 (Pat).



*particularly acute hindsight problem. The thing about concrete items of prior art, whether they are prior published documents or prior used product or process, is that whatever combination of features that concrete prior art consists of, is not one which was created with hindsight knowledge of the invention.*

*123. The problem with arguments over common general knowledge alone is that the combination of features relied on is always and necessarily one created with hindsight knowledge of the invention, and worse, is one which the person attacking validity has not been able to find as a pre-existing combination in the concrete prior art. If they had they would have relied on that concrete prior art. Either the combination has not been made in the concrete prior art at all or it only appears with additional inconvenient details. If an invention is not obvious over the concrete prior art which is relied on, the court is entitled to be sceptical that an argument that it is nevertheless obvious over common general knowledge alone is correct.*

39. Whilst I recognise that the requester's argument is not based on common general knowledge alone, the warnings regarding the starting point and the concrete prior art appear valid. Furthermore, it actually seems that the requester's argument is even weaker than one made on common general knowledge alone as it is based on common general knowledge combined with two separate features found in certain prior art. Accordingly, not only has the requester not been able to find concrete prior art showing the majority of the features, they have also not apparently been able to find concrete prior art displaying sufficient features to use as a starting point for combination with the features of the prior art. I therefore consider that I am entitled to be sceptical given that no concrete prior art has been provided regarding the "state of the art".
40. Moreover, I consider that the requester is relying on the common general knowledge as a starting point precisely because the prior art shows inconvenient details.
41. For example, the triple arm type of wheel clamp, which has three arms extending around the full diameter of the wheel as illustrated in figure 3, generally has at least one arm which is axially adjustable to allow the wheel clamp to be fitted to wheels of differing diameters. This feature may be considered to be part of the common general knowledge in respect of such wheel clamps. In any case, the position of the lock with respect to the wheel generally varies such that it would not be obvious to use a lock which attaches to a relatively fixed position on the wheel such as the wheel mounting means. This is considered to be an example of an inconvenient detail of the type referred to in the high court decisions.
42. The requester also refers to their own wheel clamps, shown in Exhibits B and C, as examples of prior art which display all of the features of the common general knowledge. However, and in common with the vast majority of the prior art referred to by the requester, the immobilising arm extends beyond the circumference of the wheel and the tyre to provide a ground engaging portion. It is not considered obvious to replace the immobilising arm having a ground engaging portion of these documents with a through wheel immobilising arm.
43. Exhibits D and E are also claimed by the requester to be examples of wheel clamps

showing all of the common general knowledge features of claim 1. These examples of the prior art include an arm which passes through a hole in the wheel. However, these wheel clamps also include an arm which extends beyond the circumference of the wheel and tyre and which includes a ground engaging portion. Essentially these wheel clamps are designed to clamp around the outer periphery of the wheel and the tyre. Accordingly it is not considered obvious to replace the locking means of these examples with a locking means which engages with the hub.

44. These examples of prior art wheel clamps, which the requester states have all the common general knowledge features of claim 1, all appear to have features which are incompatible for use as state of the art to demonstrate lack of inventive step. Accordingly the requester has put forward a hypothetical starting point based on selected common general knowledge features which does not exist in reality. As additionally stated in *Accord Healthcare v Medac*:

*124. ... To invent as a starting point in the prior art an amalgam of the best bits of the two-cited documents while leaving out the inconvenient aspects, which is in effect what the argument was, created a combination which did not hitherto exist.*

45. In my opinion the requester's argument based on a common general knowledge starting point for obviousness fails for the following reasons.
46. Firstly, the particular combination of features selected as the common general knowledge starting point is based on a hindsight approach. The requester has selected only the common general knowledge which advances their case and not any common general knowledge which teaches away from the inventive concept.
47. Secondly, the requester's arguments appear to have been based on a common general knowledge starting point in order to avoid inconvenient details of the concrete prior art.
48. I do not therefore consider claim 1 to be obvious based on a combination of the common general knowledge and the features of exhibits B and C, and exhibits D to F respectively.
49. The requester has nevertheless made a further argument regarding obviousness based on a combination of either of the requesters own wheel clamps (exhibits B and C) and the wheel clamp of exhibit D (see paragraph 32 of the request).
50. The requester claims that the wheel clamps of exhibits B and C have all the features of claim 1 except that the immobilising arm does not pass through an opening in the wheel, and that the wheel clamp of exhibit D has all the features except for the locking means engaging with the wheel hub. The requester suggests it is obvious to combine the features of these wheel clamps in order to arrive at the invention.
51. In relation to the wheel clamp of exhibit C (figure 4 below), firstly I do not consider that this has a locking means which engages with the wheel hub. Although it uses a specially adapted wheel mounting means to engage the wheel clamp with the hub, this is just in the form of a specially elongated bolt and the wheel clamp is not directly locked to it. Accordingly this wheel clamp possesses neither the locking means nor

the through the wheel immobilising arm of claim 1. Secondly, the immobilising arm has a pivoting tyre clamp which is locked in place once the wheel clamp is in position. It would not be obvious to replace this with a through the wheel type immobilising arm. Claim 1 is not therefore obvious based on a combination of exhibits C and D.



Figure 4 - Wheel clamp of exhibit C. Note position of locking means.

52. The wheel clamps of exhibits B and D are shown in figures 5 and 6 below.



Figure 5 - Wheel clamp of exhibit B.



Figure 6 - Wheel clamp of exhibit D.

53. With regard to the wheel clamp of exhibit B, I agree that the difference between it, as the state of the art, and the inventive concept is an immobilising arm passing through an opening in the wheel.
54. Similarly, I agree that one difference between the wheel clamp of exhibit D and the inventive concept is locking means extending through a mounting aperture of the wheel to engage with the wheel hub.
55. Both these wheel clamps have a radial immobilising arm which extends beyond the periphery of the wheel and tyre, the end of the immobilising arm having a ground engaging portion. In the wheel clamp of exhibit D the immobilising arm extends on the inside of the wheel and the ground engaging portion can be seen adjacent the

outer circumference of the tyre at the 7 o'clock position in figure 6 above. The difference between these two wheel clamps is therefore considered to lie in the locking means rather than in the immobilising arms. The wheel clamp of exhibit B locks to the wheel hub whereas the wheel clamp of exhibit D locks to the shield plate on the outside of the wheel. Accordingly, I do not consider that the skilled person would interpret the wheel clamp of exhibit D as having an immobilising arm extending through a hole in the wheel. Instead this wheel clamp is considered to have a locking means which extends through a hole in the wheel. Even if this were considered to be an immobilising arm for the purpose of claim 1, I do not consider it obvious to modify the wheel clamp of exhibit B in the way necessary to fall within the scope of claim 1. If the wheel clamp of exhibit B were to be modified based on exhibit D I believe it would be to replace the wheel hub locking mechanism with a through the wheel locking mechanism. I also do not consider it obvious to adapt the exhibit D wheel clamp to use the wheel hub locking mechanism. Because the immobilising arm of this wheel clamp runs on the inside of the wheel, to lock it to the wheel hub on the outside of the wheel would be unnecessarily complex.

56. I do not therefore consider claim 1 to be obvious based on a combination of the wheel clamps of exhibits B and D.
57. In summary, I do not consider claim 1 to be a collocation of features. I also do not consider that it lacks an inventive step based on the evidence and arguments put forward by the requester. In particular, I do not consider claim 1 to lack an inventive step either based on common general knowledge in combination with the features of the documents relied on as prior art, or based on a combination of the wheel clamps of exhibits B or C and D.
58. I have not considered any other combinations of documents for the purpose of this opinion. To do so would deprive both the requester and any potential observer the opportunity to submit appropriate arguments and observations.
59. Claims 2 to 18 are dependent on claim 1 and, given that I consider claim 1 to be inventive, I do not need to consider them any further. These claims are also inventive.
60. Claim 19 is an independent claim which is identical to claim 1 save that it starts by referring to "An assembly comprising a wheel and a wheel clamp ..." rather than just "A wheel clamp ...". Accordingly, claim 19 is also inventive as are claims 20 to 24 which are dependent on it.
61. Claim 25 is an independent method claim which reads:

*25. A method of securing a wheel clamp to a vehicle comprising moving an immobilising arm of a wheel clamp through an opening in a wheel of the vehicle and locking a shield of the wheel clamp to the wheel wherein the method comprises replacing a mounting element of the wheel with a first locking member in order for the first locking member to be mounted to a rotatable hub of the vehicle, the method comprising securing the shield to the wheel by locking a second locking member to the first locking member.*

62. Although this claim is expressed rather differently, it clearly requires the same

inventive features as claim 1, in particular, an immobilising arm passing through an opening in the wheel and locking means which engages with the wheel hub to secure the wheel clamp to the wheel. I therefore consider that claim 25 is also inventive.

63. Claims 26 to 28 are omnibus claims. Based on the standard construction of such claims, I consider that their scope is determined by the corresponding statements of invention on pages 2, 7 and 8 of the patent. As these statements of invention are identical to claims 1, 19 and 25, the omnibus claims 26 to 28 are also considered to be inventive.

## **Opinion**

64. On the basis of the arguments and evidence put forward, it is my opinion that the claims of the patent are valid and that they do not lack an inventive step.

Matthew Jefferson  
Examiner

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## **NOTE**

*This opinion is not based on the outcome of fully litigated proceedings. Rather, it is based on whatever material the persons requesting the opinion and filing observations have chosen to put before the Office.*