

- 5 I should also add that an administrative error in the Office led to a substantial delay in responding to one of Mr Duong's letters and as a result the compliance period was extended to 2 October 2011 under Rule 107.

The application

- 6 In general terms, the application concerns an automatic braking system for preventing a vehicle from colliding with obstructions such as other vehicles or pedestrians. To achieve this, the vehicle is fitted with a system of sensors (for example radar) with the automatic braking system being activated when an obstruction is detected.
- 7 The description and figures are dominated by very detailed if not altogether clear discussion of how this system might be put into effect in a road vehicle. However allied to this very detailed discussion, the application also contains a number of passages the purpose of which seems to be to extend the scope of protection beyond what is described in any detail. These include passages which suggest that the invention is equally applicable to other sorts of vehicles including trains of various sorts, tanks, aeroplanes, ships, submarines and helicopters. The application also contains a number of sections which comprise little more than a list of ways in which the scope of protection might extend beyond what is specifically described (and indeed a claim to that effect too).
- 8 These passages and their effect are at the heart of the disagreement between the examiner and the applicant.
- 9 The form of application I have been asked to consider was last amended by the applicant on 9 August 2011. It now includes 72 claims against which the examiner has raised various objections. As they run to 11 pages in total it is clearly not desirable or necessary for me to include them all in this decision. Those against which specific issues have been raised are included at annex A.

The Law

- 10 The Patents Act sets out a number of requirements that an application must comply with before it can be granted. For the purposes of this decision the relevant ones are:

Section 14

(3) The specification of an application shall disclose the invention in a manner which is clear enough and complete enough for an invention to be performed by a person skilled in the art

(5) The claim or claims shall –

- (a) define the matter for which the applicant seeks protection
- (b) be clear and concise
- (c) ...
- (d) relate to one invention or to a group of inventions so linked as to form a single inventive concept.

Section 76

(2) No amendment of an application for a patent shall be allowed ...if it results in the application disclosing matter extending beyond that disclosed in the application as filed.

Assessment

- 11 I think it logical to deal with the outstanding issues in the order they are addressed in the final examination report (dated 4 August). The claims have however been further amended since that report despite the examiner's request that further comment should not be submitted. I will raise any additional issues as I see necessary.

Added matter (Section 76(2))

- 12 Claim 1 as presently drafted includes the requirement that "the brakes are automatically applied by using a motor to rotate either the brake pedal or a brake outlet rod, or **operative equivalent**, and therefore apply the brakes". The examiner has reported that the inclusion of "operative equivalent" adds matter contrary to section 76(2). In deciding whether it does I think the origin of this limitation warrants some explanation. Claim 1 as originally drafted included no such limitation as to the way the automatic braking was effected. The brake pedal/outlet rod limitation was introduced in an attempt to overcome the prior art cited by the examiner. That prior art showed that the general concept of an automatic braking system activated when an obstruction is sensed was well known at the priority date of the invention. No objection was raised against that initial amendment – there being abundant disclosure in the application for the brakes being applied in that way. The "operative equivalent" alternative is a later addition to the claim and seems to be a consequence of Mr Duong's desire to obtain protection for his automated braking system in other sorts of vehicles including helicopters and submarines which do not have brake pedals.
- 13 Whilst those other sorts of vehicle are mentioned in the specification, the examiner has reported that no alternative braking methods are disclosed and hence that the inclusion of "operative equivalent" in claim 1 constitutes added matter.
- 14 For his part, Mr Duong seeks to rely on what is now claim 72 as providing the basis for this amendment. The question of whether an amendment adds matter is of course determined by comparing the specification as amended with what was originally filed. The functional equivalent of present claim 72 was claim 100 as originally filed. It is reproduced in the annex to this decision. The final paragraph of the description as originally filed also has basically the same content.
- 15 Mr Duong considers that the references to "basis, grounds, additions, reductions, modifications similarities, imitations, substitutes" and the like in this claim (and corresponding section of the description) provides the basis for the sort of amendment he is seeking in claim 1. He is sorely misplaced in that belief. Merely including passages to the effect that the invention covers all manner of alternatives which are not actually described does not constitute sufficient disclosure of those alternatives such that they can be included in a valid claim. In this instance, the application as filed does not include any enabling disclosure of "operative

equivalents” and its inclusion in claim 1 is contrary to section 76. That reference would need to be deleted before the application could be granted.

- 16 Before turning my attention to the other added matter objections raised by the examiner I would add that the wording “operative equivalent” as used in claim 1 causes me a number of other concerns. In my view its meaning is wholly unclear and renders the scope of claim 1 indeterminate. For example if, as Mr Duong intends, the claim also extends to an automatic braking system in a helicopter, what is the operative equivalent of a motor rotating the brake pedal in a car? I have no idea from reading the specification. Thus I think this phrase contributes to claim 1 not being clear as is required by section 14(5)(b). Furthermore, as I have mentioned above, the requirement that the brakes are applied by using a motor to rotate the brake pedal or a brake outlet rod was included in claim 1 to overcome the prior art cited by the examiner. The inclusion of “operative equivalent” negates that limitation and leaves a question mark in my mind as to whether claim 1 is distinguished over the prior art.
- 17 The examiner has also reported that amended claims 14 and 15 are not allowable as they add matter. Those claims are again included in the annex. Whilst not clearly drafted, those claims contain detail as to how the braking is achieved by “motor rotating extra reversed propeller(s)” in the helicopters/airplanes of claim 14 or ship/submarine of claim 15. The examiner has reported that the application as filed is entirely silent as to how braking might be achieved in these vehicle types and that these amendments add matter contrary to section 76.
- 18 For his part, Mr Duong again relies upon the generalising statements in the original description and claims as the basis for inclusion of this detail as to the specific way that the braking is achieved in these vehicles. For the reasons I have given above his view that the generalising comments provide such a basis are misplaced.
- 19 I agree with the examiner that the inclusion in claims 14 and 15 of the detail as to how braking is achieved in those other vehicles adds matter contrary to section 76. It is simply not disclosed in the application as originally filed. The application cannot be granted whilst the content of claims 14 and 15 remains.

Insufficiency

- 20 Section 14(3) states that the specification must “disclose the invention in a manner which is clear enough and complete enough for an invention to be performed by a person skilled in the art”. The examiner has reported that the specification does not fulfil that requirement in respect of what is claimed in claims 14 and 15 since the specification contains no information on how the automatic braking system would function in a vehicle such as a ship, helicopter or aeroplane. For his part, Mr Duong again seeks to rely on the generalising statements in the description and what was originally claim 100 as providing sufficient disclosure to enable the skilled man to work the invention.
- 21 Again I am afraid that Mr Duong is mis-placed in his belief that he can rely upon the generalising passages to meet this requirement. There is no disclosure of how, for example, extra reversed propellers might be actuated to prevent an aeroplane or helicopter collision which is what claim 14 seeks to protect. The same applies for the

actuation of the extra reversed propellers on ships in claim 15. The application does not meet the requirements of section 14(3) as regards the subject matter claimed in claims 14 and 15 and it cannot be granted whilst those claims are included in it.

Plurality of Invention

- 22 The examiner has also reported that claims 14 and 15 do not relate to the same inventive concept as the rest of the claims as required by section 14(5)(d).
- 23 It is not at all clear to me what claims 14 and 15 mean. On the one hand, they purport to be dependent on claim 1 and would thus appear to include all the features required in that claim. That would point to them relating to the same invention as claim 1.
- 24 However as I have already mentioned, claims 14 and 15 concern vehicles that do not have brake pedals. Claim 1 on the other hand specifies that the vehicles concerned do have brake pedals. That casts some doubt on whether they relate to the same inventive concept. What is more, most of the wording in those claims is concerned with the provision of a warning to the pilot or commander of the vehicles concerned in advance of any automatic deployment of the brakes, rather than to how automatic braking system works per se. Again that leads me to doubt that they relate to a single invention.
- 25 In my view, the added matter, insufficiency and clarity objections relating to claims 14 and 15 are far more serious than whether those claims relate to the same invention as claim 1 and indeed make it impossible to determine that issue with any certainty.

General clarity points

- 26 I have indicated above that I think claim 1 is unclear because of the inclusion of the expression "operative equivalent". That is not the only clarity issue I see in claim 1 however.
- 27 In a change introduced subsequent to the final examination report, the claim includes the wording "The basis/bases of" as a preamble before moving onto the sort of wording one might normally expect to see in a claim. Mr Duong is insistent that that wording is necessary to ensure he gets the scope of protection his invention merits. Without it, he argues, someone would be able to avoid infringement merely by making some minor alteration to what is claimed. In my view, Mr Duong's concerns are misplaced. It is very well established in UK law¹ that patent claims are to be given a purposive rather than a literal construction. The preamble wording "The basis/bases of" is entirely unnecessary as regards how the claim should be construed and serves no purpose other than to reduce the clarity of the claim. Whilst that preamble remains, the claim is unclear and could not be granted.
- 28 Furthermore, at line 2, claim 1 includes the requirement that the braking system includes a brake pedal. However, some of the vehicles mentioned in the specification (such as helicopters, ships and submarines) do not have brake pedals.

¹ Kirin-Amgen Inc vs Hoechst Marion Roussel Ltd [2005] RPC 9

Thus claim 1 appears to be seeking protection for a system having a brake pedal including in some vehicles that do not have one. That again renders the meaning of claim 1 unclear contrary to section 14(5)(b).

- 29 In his final report the examiner raised a general clarity objection against claims 10-72, with particular focus on claim 72. Indeed, the examiner has consistently objected to the predecessors of those claims as being unclear. He is absolutely right to have done so. Claim 72 is manifestly speculative in nature and of wholly indeterminate scope. It does not meet the requirement of section 14(5)(b) that the claims be clear and a patent cannot be granted for this application whilst a claim of that form is included. Moreover the claims as a whole are unclear as a result of the unclear wording employed in them to define the invention, the preponderance of alternatives they include and the imprecise dependencies many of them contain (ie the references to "any related claims").
- 30 Thus whilst I agree with the examiner that claims 10-72 are unclear, I would go further than that and say that most of (if not all) the others are too. Claim 1 is a case in point. The claims in their entirety are not clear and the application could not be granted without significant amendment to meet the requirements of section 14(5)(b).

Conclusion

- 31 I have found that the application as currently drafted does not meet the requirements of sections 14(3), 14(5)(b) and 76(2). I am also doubtful whether claim 1 as most recently amended is distinguished over the prior art previously cited. Thus it is abundantly clear to me that a patent cannot be granted for it in its present form.
- 32 The issue I must now address is what to do with the application next. The outstanding issues are all ones that could I feel be overcome if the applicant were willing to accept that the scope of protection he is entitled to cannot extend beyond what he has provided by way of enabling disclosure. The problem is that no matter how many times the examiner has told him that he will not get a patent granted without making significant amendments to it, Mr Duong has steadfastly ignored that advice and continued to pursue manifestly unacceptable claims. What is more, the latest 2 sets of amendments filed have if anything taken the application further from an acceptable form by introducing additional uncertainty, notably in claim 1, rather than seeking to advance it towards grant.
- 33 The compliance period for this application has now expired. If there was any hint that it was moving in the right direction I would be minded to allow a further opportunity for Mr Duong to amend his application to meet the requirements of the Act, subject to him requesting the extension to the compliance period available to him as of right under rule 108. However the application has not moved in the right direction and nor has Mr Duong shown any inclination to heed any advice on how to advance it towards grant despite the countless opportunities that have been given to him. I do not consider it appropriate to offer him a further opportunity to do so now.
- 34 I therefore refuse the application under section 18(3) for failure to comply with the requirements of sections 14(3), 14(5)(b) and 76 (2) the Act at the end of the section 20 period.

Appeal

- 35 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days. Should the applicant wish to retain the opportunity to file any amendments the court might direct he will need to request an extension to the compliance period using form 52.

A BARTLETT

Deputy Director acting for the Comptroller.

Annex A

Claim 1

1. The basis/bases of "Transportation having an automatic braking system, and including a conventional braking system having a brake pedal, the automatic braking system comprising front and/or rear device(s) for detecting an obstruction and an automatic braking unit activated electronically to apply the brakes in the event of an obstruction being detected; the brakes are automatically applied by using a motor to rotate either the brake pedal or a brake outlet rod, or operative equivalent and therefore apply the brakes; the brakes are automatically released by a releasing unit or a mini-motor, wherein the devices for detecting an obstruction may be one(s) of sensor(s)/radar(s)/detectable device(s), video camera(s), electromagnetic/radio waves of frequency device(s) and/or ready-made device(s)."

Claim 14

14. An automatic braking system according to claim 1 and any related claim(s), wherein sonorous signal lamp/voice recorder is installed in airplane, helicopter operating with front (third) sensor(s)/radar(s) at specific speed and/or distance for connecting to actuate to pilot during flying against obstacle to avert automatic braking of motor rotating extra reversed propeller(s), and sensor(s)/radar(s)/detectable device(s) installed comprising at its bottom and/or both sides of airplane, of helicopter, on top of helicopter, for safely sensing/detecting.

Claim 15

15. An automatic braking system according to claim 1 and any related claim(s), wherein sonorous signal lamp/voice recorder is installed in ship, submarine operating with front (third) sensor(s)/radar(s) at specific speed and/or distance for connecting to actuate to sailor comprising to lower ship/submarine speed during sailing against obstacle to avert automatic braking of motor rotating extra reversed propeller(s), and sensor(s)/radar(s)/detectable device(s) installed comprising on top, down and/or both sides of submarine, both sides of ship for safely sensing/detecting.

Claim 72

72. An automatic braking system according to any of the preceding claims in which the invention(s) includes the origin, the base, original idea, basis of invention, inventing, grounds, composition, function, structures, method and process of making, contents, illustrations, connection, comprising functioning electrically, technically and mechanically in its logical order, wire/wireless, electrical circuit connection, extension, combination, operation, installation, production, materializing, using, selling/offering for sale the invention products comprising whole/part(s) of them, putting basis of the invention(s) into practice, comprising operating the invention in transportation during running, the specific and extra uses of the invention(s), whole/part(s) of the invention, addition/ reduction part(s)/unit of the invention, any energy for operating, any material(s) for making, necessary parts, any other structure(s), modification(s), similarity(ies), imitation(s), substitute(s), replacement of part(s) assembled for performing the same/similar device(s) referring

to the original fundamentals of the invention(s) grounds to the same/similar effect, equipment/ instrument carried by driver/sailor/pilot/other(s) in running transportation operating the invention, using satellite operating network in the invention, any operation affecting the interest of the invention and/or combining the invention with any other entity(ies), device(s), equipment(s), instrument(s), object(s) or system(s) under any naming being in the scope of the protection of the invention, using the invention everywhere.

Original claim 100

100. The basis of inventing and materializing "the scope of the protection of automatic braking device/system according to any of the preceding claims in which invention(s) includes characteristic elements and structures (1-47) as below:

- (1) the origin,
- (2) the base,
- (3) original idea,
- (4) basis of invention,
- (5) inventing,
- (6) grounds,
- (7) composition,
- (8) structures,
- (9) method and process of making,
- (10) contents,
- (11) illustrations,
- (12) function,
- (13) connection,
- (14) electrical circuit wire/wireless connection,
- (15) extension,
- (16) combination,
- (17) operation,
- (18) installation,
- (19) production,
- (20) comprising operating electrically, technically and mechanically in its logical order,
- (21) materializing,
- (22) inventing of using,
- (23) using,
- (24) whole/part of the invention,
- (25) putting basis of the invention(s) into practice,
- (26) operating the invention separately and/or in combination in transportation during running,
- (27) the specific and extra uses of the invention(s),
- (28) selling/offering for sale the invention products comprising whole/a part of them,
- (29) addition/reduction part/unit of the invention,
- (30) any energy for operating,
- (31) any material(s) for making,
- (32) necessary parts,
- (33) any other structures,
- (34) any modifications,
- (35) any similarities,

- (36) imitations,
- (37) substitutes,
- (38) replacement of parts being assembled for performing the same/similar devices referring to the original fundamentals of the invention(s) grounds operating to the same/similar effect,
- (39) the original fundamentals of the invention(s),
- (40) equipment/instrument carried by driver/pilot/sailor/others using the invention on traveling way,
- (41) using satellite operating network in the invention,
- (42) using microprocessor, programmer, computer and/or similarity in the invention,
- (43) claiming the same invention comprising in any other wordings and languages in any forms,
- (44) any operation affecting the interest of the invention and/or
- (45) combining the invention with any other entities, devices, equipments, instruments, objects and/or systems under any names,
- (46) the scope of the protection of the invention and
- (47) using the invention everywhere.