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SAMPLE SCRIPT A

This script has been supplied by the JEB as an example of an answer which achieved a pass in the relevant paper. It is not to be taken as a "model answer", nor is there any indication of the mark awarded to the answer. The script is a transcript of the handwritten answer provided by the candidate, with no alterations, other than in the formatting, such as the emboldening of headings and italicism of case references, to improve readability.

NEW CLAIMS

Claim 1

A road vehicle comprising:

> a body shell having an open-topped driver and passenger compartment;
>
> a roll hoop member extending transversely of the compartment, the roll hoop member being a unitary structure consisting of a central portion having downwardly depending end sections at each end thereof;
>
> a roof panel releasably securable between the front edge of the roll hoop member and a windscreen structure on the body shell of the vehicle;

wherein the roll hoop member is pivotally connected at or adjacent to the free ends of the end sections to the body shell for pivotable movement from an erect upright position to a folded position and a retaining means is provided for retaining the roll hoop member in the upright position; and

wherein said roll hoop member exerts a compressive force on said roof panel to retain said roof panel in position.

Claim 2

A road vehicle according to claim 1, wherein said compressive force is provided to the roll hoop member by one or more strut assemblies extending between the roll hoop member and the portion of the body shell at or adjacent to the rear of the driver and passenger compartment.

Claim 3

A road vehicle according to claim 2, wherein the strut assembly comprises an upper strut pivotally interconnected with a lower strut, the axis of the pivot off-set from the central longitudinal axis of the lower strut, so that when the two struts are moved so as to be longitudinally aligned, the struts are capable of moving to an over-centre position and locking in said position.

Claim 4

A road vehicle according to claim 1, wherein said compressive force is provided to the roll hoop member by one or more spring-loaded damper assemblies connected between arms extending from the end sections of the roll hoop member and the body shell.

Claim 5

A road vehicle according to claim 4 further comprising a catch suitable for releasing the spring loading.

Claim 6

A road vehicle according to any one of claims 1 to 5, wherein the roll loop member is a unitary structure composed of a lamination of glass-reinforced plastics and foam material.

Claim 7

A road vehicle according to any one of claims 1 to 6, wherein the roof panel is held in position solely by the roll hoop member.

Claim 8

[= previous claim 5]

LETTER TO PATENT OFFICE

London, 3 November 2010

Dear Sirs,

I refer to the official letter and hereby file replacement claims 1-8.

Basis for replacement claims

Claim 1 is based on previous claim 1. Basis for the roll hoop member exerting a compressive force is found on page 5, l29 – "the arrangement may be such that the roof panel is slightly compressed" and on page 6 line 17-18 – "the urging force ... locks the roll hoop member in place & exerts a compressive force"; in both cases the force is transmitted through the hoop so the hoop itself must exert the force on the directly connected roof panel.

Claim 2 has basis in previous claim 2

Claim 3 has basis in page 5, lines 3-15 ("Each strut assembly ... locked into position").

Claim 4 has basis in page 6 lines 13-15.

Claim 5 has basis in p6 l18-20.

Claim 6 has basis in p4 l22-23.

Claim 7 has basis in p5 l26.

Claim 8 has basis in previous claim 5.

Novelty

A principal point of novelty of new claim 1 is the "compressive force" feature that retains the roof panel in place.

US'592 (D1) does not describe the use of any compressive force to retain a roof panel in place.

Hoop 3 of D1 does connect to roof part 2. Hoop 3 may also be rearward rotatable, suggesting it pivots.

However, hoop 3 rests on wide base surface 4 (p12, l26). Because hoop 3 is so supported, it cannot be pressing further forward against roof part 2 and so cannot be exerting any compressive force.

Claim 1 is therefore novel over D1.

The remaining claims are novel via dependency.

The Impractical Classics extract (D2) also fails to describe the use of any compressive force to retain a roof panel in place (i.e. in position).

In this regard describes only fabric roofs and the application of tension (the opposite of compression) to such roofs.

Claim 1 is therefore novel over D2. The remaining claims are novel as dependent on claim 1.

All claims are novel over D1 & D2.

Inventive step

The skilled man would be someone familiar with traditional open top cars having roof structures such as those described on p3, l1-25 of the application, such as a driver of such cars.

His common general knowledge would thus cover soft tops with metal frameworks and hard covers held in place with clips and latches.

The inventive concept of claim 1 is that the roof panel is retained in position via the application of a compressive force (from the roll hoop member).

The use of a compressive force advantageously ensures a water and air tight seal. Furthermore, in some embodiments, the use of a compressive force enables the roof panel to be held in place solely by the roll hoop & member, i.e. without using any clips or latches.

As noted by the Examiner D1 does describe a vehicle with a hoop, a roof panel and a windscreen.

However, as noted above, there is no suggestion in D1 that it would be desirable to retain the roof panel using a compressive force. In fact, D1 does not describe at all how a roof panel might be retained – in one embodiment of D1 the roof panel & the hoop are permanently connected together, so a retaining force would be redundant.

The D1 hoop may be rotatable backwards, so requiring a pivot.

However, the hoop rests flat on a wide base surface 4 (see fig 3) – in this the hoop will be stable so won't exert a compressive force.

There is no recognition in D1 of the problem of ensuring a tight seal that is solved by the present invention, therefore the skilled man reading D1 would have no motivation to address this problem.

Even if a skilled man did wish to modify D1 to feature the 'compressive force' feature, it is not possible to see how this could readily be achieved.

- if the hoops were altered so that it didn't rest on surface 4, then its weight might exert some kind of compressive force
- but such force might be weak, especially because the hoop would need to be very heavy to exert a significant force
- so even if a skilled man were to contemplate making the serious structural alterations to D1 that this would entail, he would still have no expectation of success. Furthermore, there is no suggestion of any of the mechanisms used in embodiments of the present invention which are suitable for transmitting a compressive force to the hoop and through to the roof panel.

With regard to D2, this document is directed towards classic convertibles having fabric roofs.

These roofs are connected using clips to hold them in place.

D2 does address the problem of keeping the roof seal watertight. However, the solution according to D2 is to apply tension to the (fabric) roof. Tension is the opposite of compression. There can be no suggestion of compression in D2, because compressing the fabric roof would cause it to lose tension and so leak more.

Thus, there is no useful suggestion in D2 that a skilled man could combine with D1 in order to arrive at the presently claimed invention.

The present claims therefore involve an inventive step.

I therefore submit that this application is in a state suitable for allowance.

Yours faithfully

Dr P Agent

LETTER TO CLIENT

Dear Mr von Roberts,

Further to your letter, I have filed a reply to the Office Actions issued by the UKIPO (the new name for the Patent Office) in order to meet today's deadline.

It was necessary to amend the claims in view of the cited documents because:

US 3141592 describes motor vehicles (= road vehicles) having a vehicle body (= body shell); open sports cars (= open topped); roof-supporting pillars [p11 l23] that form an inverted U-shaped hoop [p12 l13], the hoop supported by the arms of the inverted U-shape on ... the body [p12 l14-15] [and see figs] (= a roll hoop member ... unitary structure ... downwardly depending and sections);

Fig 2 shows "roof part 2 is detachable from the hoop" [p12 l25] (= roof panel releasably securable); the roof part 2 is shown in fig 2 secured between hoop 3 and a windscreen;

the hoop may be 'rearward rotatable' [p12, l33] (= must be pivotally connected and able to fold back); a quick release catch [p12, l34] can retain the hoop in an upright position [p12 l33-34] and so must be a retaining means

US 592 describes all features of previous claim 1. Claim 1 therefore lacked novelty and required amendment.

Claims 2 and 3 were alleged to be obvious

- I can see that struts per se may be obvious to the extent that this claim does not provide any detail on how said struts operate or if they exert a force

- a rear hood is clearly obvious

- the application describes a known arrangement having a foldable metal framework – could be "struts".

- so features of claims 2 & 3 will not help get a valid claim 1.

- Claim 4 is alleged obvious in light of the "impractical classics" extract.

    - Claim 4 recites a biasing force
    - the extract refers to “tensioning”, which is a kind of biasing force
    - so claim 4 is obvious only because it covers “tensioning”.

- Potential amendments
- The application contains a number of features not found in US’592 or the extract which would provide novelty if added to claim 1.
- p4 l22 says the roll hoop member may be made of a laminate construction
- but this may be a standard known alternative in the art so would not be inventive
- p6 l23-25 states that roof panel may be held in place solely by clips at the front and rear of the roof section
    - appears novel
    - but clips (catches) at front at least are known (see extract)
    - hard to see why this would be inventive.
- Two novel mechanisms are described
- 1. the struts lock in place with an over-centre action (p6 para 2)
- 2. the struts are replaced by the spring-loaded chargers (p6 para 3)
- while struts per se are obvious, there is no suggestion of struts with said over-centre action in either prior art doc.
- The technical effect of both mechanisms is to hold the (hard) roof in place with a compressive force (p5, l29 & p6, l18)
- Thus both mechanisms have a unifying technical feature and can be covered by a single claim
- The mechanisms themselves can be covered as dependants
    - This saves the cost of filing a divisional, while covering both what your Bavarian competitors are interested in (the struts) and the spring loaded version which may be successful if automated (note we can’t claim automation as no basis in patent).
- If Examiner objects that the “compressive force” feature is known, we can proceed with either one of the mechanisms in this application and divide out the other in a divisional (as an objection re ‘compressive force’ will lead to a lack of unity)
- With regard to Claim 3, I retained the ‘upper’ & ‘lower’ designations as these seemed required to describe the over-centre concept clearly; the ‘locking in position’ is also required for an over-centre action to work.

  N.B.: upper and lower are clear because they would be considered relative to the car, which always has the same orientation.
- I have added dependent claims to cover further features of your product.

- With regard to your Bavarian competitors, please note that should they copy your idea, you will only be able to enforce the patent against them when it grants, and only in respect of infringing activities that take place in the UK.

- Your claim covers a whole car, but anyone supplying in the UK the means to exert the compressive force e.g. as a spare part or retro-fit would be guilty of contributory infringement.

- Once the patent is granted, available remedies against an infringer would include

    : an injunction to stop their activities

    : delivery up of the infringing articles.

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SAMPLE SCRIPT B

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CLAIMS

1. A road vehicle comprising:

    a body shell having an open-topped driver and passenger compartment;

    a roll hoop member extending transversely of the compartment, the roll hoop member being a unitary structure consisting of a central portion having downwardly depending end sections at each end thereof;

    a roof panel releasably securable between the front edge of the roll hoop member and a windscreen structure on the body shell of the vehicle;

    wherein the roll hoop member is pivotally connected at or adjacent to the free ends of the end sections of the body shell for pivotable movement from an erect upright position to a folded position and a retaining means is provided for retaining the roll hoop member in the upright position;

    and wherein said roll hoop panel is retained in position by a biasing force of the roll hoop member in its upright position, which compresses the roof between the windscreen and roll hoop member.

2. Same as previous claim 2.

3. A road vehicle according to claim 2 in which the strut assembly comprises two pivotally interconnected struts, an upper strut and a lower strut.

4. A road vehicle according to claim 3 in which the upper end of the lower strut comprises two longitudinal flanges, with a reduced width lower end of the upper strut being secured between the flanges by a pivot pin which is offset from the longitudinal axis of the lower strut.

5. A road vehicle according to claim 1 in which the retaining means comprises a spring-loaded damper assembly connected between the roll hoop and the body shell to urge the roll hoop member into its erect position.

6. A road vehicle according to any preceding claim, in which the roof panel is provided on its front and rear edges with spaced-apart projections which engage in corresponding recesses in the windscreen structure and in the roll hoop member to stem the roof panel in position.

7. Same as previous claim 3.

8. Same as previous claim 5.

LETTER

Novelty

It is submitted that amended claim 1 is novel over the disclosure in US 3141592.

Claim 1 has been amended to state that the roof panel is retained in position by a biasing force of the roll hoop member in its upright position which compresses the roof between the windscreen and the roll hoop member.

There is no disclosure in US 3141592 of the roof being secured to the car in this way. US 3141592 merely states that the roof part is removable and that it may be constructed so that it can be rolled up and removed or it may be a so-called targa panel constructed, for example, from rigid fibre glass. Although it does not appear to explicitly state how exactly the roof is secured to the rest of the car, it is known that various latching mechanisms may be used to secure the panel in position both between the panel and the roll hoop as well as between the panel and the windscreen on e.g. targa roofs.

Inventive step

The invention as defined in claim 1 provides a distinct technical benefit over devices known in the prior art.

For example, the fact that the roof panel is compressed between the roll hoop member and windscreen means that it can be used without the need for clips to secure the roof to the body of the car. This means that it is less fiddly and a lot simpler to use than the devices of the prior art.

As stated in the description (page 3, lines 26-30) the roof panel may be held in position solely by the roll hoop member without the requirement of further clips or other retaining members.

Furthermore, when the roof panel is slightly compressed – it may allow a water tight seal to be forged.

Although the examiner cites "impractical classics" as demonstrating that exertion of a biasing force in roof attachment is known – this document refers to biasing as a result of using clips, latches and catches. As explained above, the present invention negates having to use latches and catches, yet allows a water tight seal to be secured. Furthermore, as "impractical classics" alludes to, latches and catches require maintenance to maintain air-tight and water-tight seal. The preset invention may avoid the need for such maintenance.

Thus, the preset invention provides the benefits of the fixed hoop which are known from US 3141592 e.g. load bearing in the event that the vehicle is rolled over yet provides a much simpler form of removable and/or foldable roof structure which is compatible with the hoop.

In light of the amendments submitted, it is believed that the application is now in order for grant.

Yours faithfully,

CLIENT MEMO

- Extension would need to be requested (2 months as of right) because the deadline is 3rd November 2010 and draft response needs to be approved by the client.

- I believe examiner is correct in his assessment of claim 1 i.e. lacking novelty – mainly because of the further embodiment shown in fig 3 of US 3141592. In figs 1 and 2 the roll hoop member is not pivotable and so these embodiments will not appear to render claim 1 as

anticipated. In fig 3 the roll hoop member is pivotally connected at 8 which allows movement from an erect upright position to a folded position – as shown by the arrow in fig 3.

- The retaining means in US 3141592 is very different to yours in that it is a quick release catch and not a strut or spring-loaded damper. However, because of the broad wording of this feature – it does appear to encompass the prior art.

- Considered amending claims to specify the pressure of a strut but in exam report examiner did not believe this was inventive. I believe it may be possible to distinguish from US 3141592 by limiting claim 1 to the particular strut mechanism cited i.e. an upper and lower strut connected by an off-axis pivot. However, taking into account client's comments in his letter that there was a lot of interest from competitors at Bavarian Motor Works because it would allow them to get rid of the fiddly clips needed to keep the roof nice and watertight.

- Also noted that car journalist stated it would never sell unless automated. Client did not see how he could do this for the strut arrangement but was working on developing a spring loaded one.

- Therefore I considered it important that both embodiments were covered: one way to do this would have been to file divisional to the spring-loaded embodiment and pursuing the strut embodiment in this present application. This would have the associated cost of filing a divisional application therefore ideally both embodiments would be covered in the same application.

- On page 4 of the application – I note that a feature common to both embodiments and also leading to the specific advantages stated by your competitors at the Paris motor show is the fact that clips are not needed. This is a result of the biasing force of the roll hoop – biased by struts in one embodiment and by the spring in the other embodiment.

- Therefore if include this feature in the claim – would distinguish from the prior art and also incorporate both embodiments.

- The claim to retention by a biasing force – claim 4 in the original application claims would thus need greater clarification in light of the disclosure in "impractical classics". The only mention of biasing is in relation to clips, which are not necessary in what appears to be your two key embodiments.

- However, this does mean that the embodiment detailed on page 5, lines 21-28 would not be included in the scope of amended claim 1. But given the positive feedback with respect to not requiring clips or separate fastening means – it would appear that this may not have much effect. In any event, it would appear that this particular embodiment is not novel or at least obvious in light of US 3141592 and "impractical classics".

- Have included extra subclaims which depend from amended claim 1 which cover both alternative "retaining means" i.e. strut and spring. This would give us fall back positions in the event that the examiner objects to claim 1 and/or uncovers further relevant prior art.

- If objections do remain, the option to file a divisional directed to one of the specific 'retaining means' is still available but as explained above – for cost reasons – it is favourable to attempt to cover both embodiments in one application.

- Client is working on an automated mechanism because claim does not specify manual application – I believe if client does develop an automated set up for spring embodiment it is still likely to be covered by this claim.

- However, once client does develop a mechanism that works in relation to the spring we may file a new patent application for this.

- Remember to answer client's specific query about UKIPO explaining that it is a working name for the UK patent office.

- A lot of interest from competitors but client has not expressed an imminent infringement; therefore have not advised accelerated prosecution which requires such a reason for its implementation.

- Advise that client informs us ASAP if a competitor brings out a product potentially falling within claims because may then request accelerated prosecution – can only enforce a granted patent.

- Claims have been narrowed therefore possibility of back damages under s69 remains. If anyone potentially infringes between publication and grant.

* * * * * * * * * *

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SAMPLE SCRIPT C

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AMENDED CLAIMS (RE-TYPED)

Claim 1: A road vehicle comprising:

a body shell ... [no amendments] ... from an erect upright position to a folded position and a retaining means is provided for retaining the roll hoop member in the upright position by means of an urging force, the urging force securing the roof panel between the front edge of the roll hoop member and the windscreen structure, by exerting a compression force.

Claim 2: Not amended

Claim 3: A road vehicle according to claim 2, wherein one or more of the one or more strut assemblies comprises an upper strut pivotally connected to a lower strut, wherein the upper and lower struts are capable of moving to a locked position, the locked position retaining the roll hoop member in the upright position.

Claim 4: A road vehicle according to claim 12, wherein the retaining means comprises one or more spring-loaded damper assemblies extending between the roll hoop member and the body shell, wherein the spring-loaded damper assembly is arranged to retain the roll hoop member in the upright position.

Claim 5: A road vehicle according to claim 4, wherein a latching mechanism is arranged to replace the spring loading such that the roll hoop member can be moved into the folded position.

Claim 6: Corresponds to previous claim 3.

Claim 7: Previous claim 5.

LETTER TO UKIPO

Dear Sir,

This is in response to the outstanding examination report. I hereby request a two month extension of time under S.117B of the Patents Act.

Please find enclosed amended claims 1 to 6 to replace those currently on file.

Amendments

Claim 1 is amended to recite that the roll hoop member is retained in the upright position by an urging force, which also secures the roof, which finds basis in the description at, for example, page 6, lines 17-18 with respect to the use of a spring-loaded damper assembly, and previous claim 4.

It is also clear that the skilled person would understand that such a force is also present with the strut assemblies, as p5, l 26-30 explains that the roof panel may be held in position by compression caused by the struts holding the roll hoop in the upright position, and such a compression would only be achieved if the struts are exerting an urging force on the roll hoop.

This disclosure is also supported and confirmed by page 6, l 21-23, which also refers to the 'force' holding the roof in position.

Claim 2 corresponds to previous claim 2.

Claim 3 finds basis in the description at page 5, lines 3 to 15.

Claim 4 finds basis in the description at, for example, page 6, l 13 to 18.

Claim 5 finds basis in p6, l 18-20 of the description, together with p3, l 24-25, which discloses that various latching mechanisms (i.e. not just a clasp), are known in the art.

Claims 6 and 7 correspond to previous claims 3 and 5, respectively.

Novelty

'592 cited by the Examiner is directed to car safety for convertibles, while retaining the option to remove the safety feature if desired. The safety feature is 'roof-supporting pillars forming a hoop', which corresponds to the roll hop member of the present invention.

However, '592 does not disclose a retaining means that retains the roll hoop member in the upright position by means of an urging force, as required by claim 1 of the present invention. Instead, '592 only discloses a 'quick release catch', as acknowledged by the examiner, or a pivoting arrangement.

Neither of the disclosed arrangement applies any urging force to the roll hoop, and hence claim 1 and all dependent claims are novel

In addition, '592 does not disclose retaining the roof in position using this urging force when the roof is detachable, instead disclosing again only quick-release securing means (p12, l 23-31).

"Impractical classics" does not disclose a roll hoop or retaining means for the roll hoop at all and therefore does not anticipate the present invention.

Inventive step

- The skilled person is clearly aware of art relating to vehicles, as acknowledged p3 l1 of the application, and associated common general knowledge.

- The inventive concept of the present invention provides a mechanism to secure a releasable roof panel in a convertible car, without the need for any locking clasps attaching the roof to the rest of the car. This mechanism inventively uses an urging force to both hold an roll hoop in an upright position, providing added safety to the car passengers, and using this same urging force to compress (or squeeze) the roof panel between the roll bar and windscreen, securing it in place.

In addition to securing the panel in place, this arrangement forms a tight waterproof seal, preventing any leaking.

The prior art of '592 differ in that it makes no mention of using such an urging force to hold the roll bar in place.

Indeed, the '592 makes no mention of how to achieve a tight seal at all, or the problems associated with replaceable car roof segments.

Without any teaching to the force, or even acknowledgement of the problem, there is no incentive for the skilled person to seek to find a different arrangement.

The Impractical Classics extract acknowledges the widespread problem of leakage, but does not mention roll bars at all, and explains that latches should be greased to maintain tension in the fabric of the roof. This is thus a teaching away from the present invention, which uses compression of a solid roof segment to keep a tight seal.

Thus not only does the combined disclosures not point to the present invention, they together in fact teach the skilled person a very away from using an urging force for the roll bar retaining means. Thus Claim 1 and dependent claims are inventive over the prior art.

If the Examiner considers the present claim set is ready for grant, it is requested that grant is delayed for 1 month from the date of this letter, to provide the Applicant with the chance to file a divisional application.

Yours sincerely,
X

LETTER TO CLIENT

Dear Mr Von Roberts,

Thank you for your letter. I have filed a response to the UKIPO on your behalf, which is indeed the Patent Office as you suspected.

I have amended the claims, which define the scope of protection, to make sure the most important embodiments of your car are protected – both the strut arrangement and the spring-loaded arrangement.

Unfortunately I have had to limit the claims somewhat to arrangements where the replaceable roof is held in position by the force of the retaining means (i.e. strut or spring), urging the roll hoop into the upright position.

This means one of the embodiments in the application, referring to using clips to hold it in place (p6, l 21-28) is no longer covered.

However, I have asked the IPO to hold off granting the patent for a month, to give us a chance to file a divisional, if this embodiment is important to you.

However, as I understand it, using such an arrangement is not preferable, leading to the fiddly clips used by Bavarian Motors, and so may not be of great commercial concern. Also, I do not believe such an embodiment will be inventive (or possibly new) over the prior art, and so is not patentable.

Please call me if you would like to discuss this further in case I have missed something.

In addition, I have added a claim covering latching mechanisms, for a spring-loaded embodiment.

It was not possible to explicitly add that the mechanism was automated, as there was not basis for this in the application.

However, an automated mechanism is probably still covered by the claims.

It is possible that such a mechanism may be patentable once you have developed it, particularly if technical difficulties are overcome, so we could file another patent application directed to this. Perhaps file in other EP countries too?

Note that cannot threaten BM until patent granted.

Also patent only covers UK, so we should consider if any protection available elsewhere (outside 12 months priority period?).

Could take action against BM i.e. they import into UK, however.

* * * * * * * * *