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FD3	1 of 14	52%

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Spare Set of Claims

CLAIMS

1. A spray removal unit for use on a bicycle, consisting of a body formed from a robust plastic material, with at least one group of flexible wipers, the flexible wipers being inclined at an angle towards the rotation of the wheel to reduce the friction on a wheel of a bicycle in use and assist in the removal of water, wherein the unit is attached to the frame of a bicycle in use by two stays and is movable between an engaged position, where the bristles are in contact with the wheel of the bicycle in use, and a disengaged position, where they are lifted from the wheel, wherein the body consists of passages through the body to allow and assist the water swept off the tyre to be expelled rearwards.
2. A spray removal unit as claimed in claim 1, wherein the passages are channels.
3. A spray removal unit as claimed in claim 1 or claim 2, wherein the passages extend through the body at about the same angle as the flexible wipers.
4. A spray removal unit as claimed in any one of the proceeding claims where the passages are between and slightly below the upper rows.
5. A spray removal unit as claimed in any one of the proceeding claims, wherein a corresponding number of passages is provided.

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6. A spray removal unit as claimed in any one of the preceding claims, that has an attachment which allows it to be clipped to the bicycle frame in use on or near the brake-mount of a bicycle, thereby holding the unit in the disengaged position.

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7. A spray removal unit as claimed in any one of the preceding claims, where the stays are configured to pivot at the point where they are attached to the frame of a bicycle in use. ✓

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8. A spray removal unit according to claim 3, where the stays are attached to the frame at a point above the axle but level with it in the front-rear direction, so that rotation of the unit to the disengaged position lifts the bristles from the wheel of a bicycle in use.

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9. A spray removal unit as claimed in any preceding claim and having a rear reflector mounted on it.

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10. A spray removal unit as claimed in claim 8 wherein the reflector is a L-shaped.

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11. A spray removal unit as claimed in claim 8 or in claim 8, wherein the reflector comprises two perpendicular reflecting surfaces, so that a reflector is presented rearwards in both disengaged and engaged positions of the unit ✓

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12. A spray removal unit as claimed in any preceding claims wherein the flexible wipers in the form of rows of bristles

✓

13. (new) A spray removal unit as claimed in any preceding claim wherein the flexible wipers are inclined at an angle of about 25-50°.

14. A spray removal unit as claimed in claim 14, wherein an angle of about 40 degrees in the direction of the rotation of the wheel.

✓

16. A bicycle having a spray removal unit as claimed in any one of the preceding claims.

MARKS AWARDED: 18/31

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Letter to UKIPO

Dear Sir/Madam,

Please find attached a response to the Rule 18(3) communication dated 25 July 2022.

The response is being filed before the deadline of 25 November 2022.

We attach a replacement set of claims and kindly ask you substitute these for the claims on file, and prosecution continue in relation to the attached claims.

Amendment

Claim 1 has been amended to include that the '*the body consists of passages through the body to allow and assist the water swept off the tyre to be expelled rearwards*'. Basis for the amendment can be found on page 5, lines 33 to 35. ✓

Claim 1 has been further amended to recite 'flexible wipers' instead of 'bristles'. Basis for amendment can be found in lines 1 to 2 on page 3. 'Other flexible wiping arrangements could be used, replacing the rows of bristles.'

Claim 1 has been further amended to specify the 'wheel' and 'frame' are not part of the claimed apparatus, and rather noting how the apparatus would interact with a bicycle in use. As is supported through the description.

Claim 2 is towards the passages being channels, Basis for the amendment can be found on page 5, lines 29 to 31

Claim 3 is towards the same angle, Basis for the amendment can be found on page 6, lines 1 to 2

Claim 4 is towards the passages are between and slightly below the upper rows, basis page 5, lines 29 to 31

Claim 5 is to wherein a corresponding number of passages is provided, basis page 5, lines 29 to 31.

Claim 6, 7, 8 has been amended to specify the frame, wheels and brake-mount are all in relation to the unit being used with a bicycle, in use.

Claim 9 amended to remove large and red. Basis can be found on line 6 to 7 on page 6

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Claim 10 is a new claim and introduced the reflector being L-shaped. Basis can be found on line 6 to 7 on page 6

Claim 10 is a new claim, and specifies the reflector being two perpendicular reflecting surfaces, so that a reflector is presented rearwards in both positions of the unit, basis can be found on line 7 to 9 of page 6.

Claim 11 is towards the flexible wipers being bristles, this can be found in former claim 1, and in lines 11 to 12 on page 5.

Claim 12

Claim 13 is towards the flexible wipers are inclined at an angle of about 25-50 degrees, basis can be found line 17 on page 4. Further claim 14

Claim 12 wherein the flexible wipers in the form of rows of bristles page 5 line 10. =

Claim 15 is a new claim towards a bicycle with the unit, basis can be found in line 3 on page 5. ✓

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Novelty

GB 2020202 discloses a splash guard is provided having a clamp for securing the guard to the frame of a bicycle adjacent to an uncovered wheel. The splash guard has a flexible material, moulded on the arm for extending over the wheel; the shield being formed by the flexible material is cut into strips to form a cutout closely conforming to the cross-section of the perimeter of the wheel, having within it a plurality of flexible fingers extending in the cutout area. The fingers are opposed to bristles. The body is flexible material, as in lines 25 on page 10. It is not a robust plastics material. There is no disclosure of channels through the body. The flexible fingers are equivalent as the bristles. There are no channels disclosed for guiding away water. GB 2020202 teaches towards the use of a flexible material which would be unable to have channels too as would have no structural integrity. Also, GB 2020202 discloses the cutout having a position in close proximity to the outer periphery of the wheel and the flexible fingers contact the wheel to prevent the passage of water or debris between the shield and the wheel, and to deflect the water and debris that is thrown from the wheel. Thus, claim 1 is novel at least over GB 2020202.

GB 1,111,111 discloses an improved device for use with a mudguard. Although it does have a solid body. The squeegee does not have a passages through the body to allow and assist the water swept off the tyre to be expelled rearwards. It teaches towards having a curved or turned edge 6 of the plate 5 instead. Thus, claim 1 is novel at least over GB 1,111,111.

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Inventive Step

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- The notional skilled person in the art would be a designer of bicycle parts, in particular, a person who designs mudguards or mudguard alternatives to stop mud, water and road spray impacting a bicycle riders experience.
- The common general knowledge of that person would include alternatives to mudguards for stopping road spray that are well known in the UK. It would include means for brushing the road spray directly off the tyres instead of catching it after it leaves the tyres. This would include scraping devices such as those disclosed in GB1,111,111. It would also include conventional mudguards.
- Inventive concept ✓

Inventive concept is the provision of a spray removal unit that stops road spray and other debris from going on the user, not only by brushing it directly off the tyres, but also by ensuring through the use of channels that the water is expelled rearwards of the bicycle, rather than perhaps on to the row of bristles below or back on to the tyre. ✓

- Differences between prior art and inventive concept

The prior art documents do disclose the use of units to brush the mud, or water directly off the tyres. This is acknowledged. However, none of the prior art discloses the use of channels to ensure that the water is expelled rearwards of the bicycle. ✓

GB 2020202 aim: provide a splash guard for a bicycle that is light, uncomplicated, less expensive and more effective than guards of the prior art, that is stored unobtrusively and conveniently when not in use.

GB111111 aim: minimise the accumulation of mud or the like on the under surface of the mudguard and/or other parts of the vehicle, such as the driving chain and gears.

The prior art documents have different aims to the current invention. The aim of the current invention being the channelling of the spray from the bristles to the outside so the bristles don't get clogged. ✓

GB 2020202 discloses having a cutout 46 formed by cutting a plurality of slits 48 in the shield 44, with each slit having a different length such that a set of flexible fingers 50 is formed extending into the cutout area. This is so that the flexible fingers therefore extend into contact with the outer periphery of the uncovered wheel 15 and drag or rub against the tyre on the wheel. This is because, the flexible region is formed so it closely conforming to the cross-section of the perimeter of the wheel, so the curvature of the cutout generally conforms to the cross-sectional shape of the tyre mounted on the wheel. Thus, the inventive concept is directed towards the provision of a shield having flexible fingers that can conform to the cross-section of the perimeter of the wheel to deflect the water and debris that is thrown from the wheel (by having different length of finger). The skilled person would therefore not be motivated from this document to include passages in the non-cut out part of the

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shield, as the cut outs are specifically arranged to be the same as conform to the cross-section of the perimeter of the wheel. As, this is providing a way in which to stop the water which is different to the present invention.

As GB 2020202 teaches towards the use of flexible fingers extending into the cutout and into contact with the wheel effectively intercept such debris. There is no suggestion of another way to remove the water. There is not suggestion of channels that extend from between the fingers, to an outer edge of the device to drain water backwards. The document teaches towards the use of cutout having a position in close proximity to the outer periphery of the wheel so that the flexible fingers prevent the passage of water or debris between the shield and the wheel, and to deflect the water and debris that is thrown from the wheel. GB 2020202 discloses using flexible material. The inclusion of channels in the remainder of the flexible material, without the slits, would compromise the structural integrity of the shield. Additionally, the reflector is moulded integrally into the rear of the shield, so channels would disrupt the reflector.

GB 1,111,111 teaches a device for removing mud or the like from the tyres of bicycles or other vehicles. It is aimed towards use alongside a mudguard. The present invention does not require a mudguard. GB 1,111,111 is directed towards moving the position of the flexible yielding wiper/ squeegee relative to the backing. It has a slot 2, in the backing plate, but purposes teaches towards the bottom plate having a curved or turned edge 6 of the plate 5 to avoid mud being thrown through the slot 2. Thus is teaches away from any water or mud going into the slot. It instead suggests the use of a curved or turned edge to direct mud and water from the bristles away from the slot. There is no suggestion or teaching or disclosure of using channels to purposely direct the spray or mud away from the squeegee or wiper. Thus, the channels would not be obvious to the skilled person based upon GB 1,111,111.

Combining GB 1,111,111 and GB 2020202. The documents are to slightly different aims, one to protect a user without a mudguard, one to protect the mudguard itself. The skilled person is unlikely to combine the two. However, in the case where the skilled person were to combine them, neither in combination with ease other, nor with the CGK of the skilled person do they disclose channels for directing the water away rearwards. The documents both have different suggestions as to how to prevent mud/water from passing the bristles/flexible members. Therefore, the invention of claim 1 as amended would not be obvious to the skilled person in the art, based upon either prior art document, individually or in combination with one another, or in combination also with CGK.

Additionally, both documents are over 20 years, if the present invention was so obvious, surely a device would have already been made as they have been available to the public for a considerable amount of time.

The dependent claims are novel and inventive by virtue of their dependencies at least.

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Conciseness, Clarity and Support

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Claim 1 has been amended to specify the wheel is of a bicycle in use, as is the frame.

Claim 3 has also been amended to specify the wheel and frame is in reference to when the spray removal is placed on a bicycle in use, as is the frame.

Claim 4 has also been amended to specify the wheel and frame is in reference to when the spray removal is placed on a bicycle in use, as is the frame.

Claim 5 has been amended to remove the unclear term 'large'. As the claim was unclear, the amendment is not broadening.

As such, the clarity objections in items 6 and 7 of examination report have been addressed.

We respectfully request the Examiner re-examines the application, and gives notice of grant so that a divisional application may be filed by the applicant if desired.

If the Examiner is not satisfied with the above amendment, we request we are permitted an oral hearing before refusal.

Yours sincerely,

X

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Client Memo

Why we need to amend

GB 2020202 D1 does disclose a road-spray remover unit (splash guard) for a bicycle, consisting of a body with at least one group of bristles (it discloses a flexible material with plurality of arms that extend over the wheel, thus having same function as bristles), the bristles being inclined at an angle towards the rotation of the wheel (the bristles although not explicitly angled, as they are flexible, would bend as shown in Figure 3 as the wheel turned) to reduce the friction on the wheel and assist in the removal of water, wherein the unit is attached to the frame of the bicycle by two stays (the splash guard is attached by a single clamp, however line 31 on page 11 does suggest it could have two arms – equivalent to the two stays) and is movable between an engaged position, (the guard can be moved from a guard operative position (lines 22 to 23 page 11) where the bristles are in contact with the wheel, and a disengaged position, where they are lifted from the wheel (can be moved to storage position, lines 23 to 26, as chosen by the user). As such, I agree with the Examiner that all features of claim 1 are disclosed, by equivalents.

GB1,111,111 discloses an improved device for removing mud or the like from the tyres of bicycles or other vehicles (equivalent to road-spray remover unit), it has rigid backing and a flexible yielding wiper or squeegee (equivalent to the at least one group of bristles) the bristles are attached to via a hinge, thus the flexible yielding wiper or squeegee can be angled at an angle towards the rotation of the wheel (as it can also be adjusted to be further away so it would have clearance – although this may affect how good it is at squeegee-ing. I suppose it is arguable if it is attached to the frame of the bicycle, as it is fitted to the mudguard (10), however, the mudguard is fitted to the frame of the bicycle, so indirectly it is attached to the frame. Finally, it is disclosed that the device can be arranged so as to be readily folded into an out-of-action position.

As such, I do consider it necessary to amend claim 1, we could argue on points but I do not think we would be successful.

Claim 2 is disclosed in GB 2020202, which describes storing the device so it is 'positioned closely beneath the seat 19' – line 22 on page 12.

Claim 3 is disclosed in GB 2020202, 'arm is pivotally secured to the clamp' is described in line 20 to 21 on page 10.'

Claim 4 is also disclosed in GB 2020202.

Claim 5 is not disclosed as red reflector, but reflector is disclosed in GB 2020202. So I somewhat disagree with examiner.

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Amendment of claim 1 to be novel and inventive, in turn will mean the dependent claims are also novel and inventive.

Amendment options

- Specify the reflector works in reflector works in both positions of the unit. ✓

could be a light as well as (or instead of) a reflector – we do not have basis in the spec for this ‘rear reflector 14 as illustrated; the reflector is preferably L-shaped, with two perpendicular reflecting surfaces, so that a reflector is presented rearwards in both positions of the unit’ is the basis, alongside ‘having a large red rear reflector’. Thus no disclosure of light possibility. Therefore, did not include at this point, not allowed to add matter would have struggled. May be more suited to a divisional claim (although still added matter problem/new application when more fleshed out idea?) – added as dependent claim. ✓

GB 2020202 has a reflect – it is not shown in pictures but disclosed in lines 24-25 page 12 as ‘moulded integrally into the rear of the shield 44 so that it 25 faces rearwardly of the bicycle when the arm 28 is in the storage position.’ This would suggest it is only visible in storage position. No disclosure in D1 to this at all. So reflector would be novel and inventive over D1. The examiner may re-do a search directed more towards moveable reflectors.

As such, I have not used this as the main amendment, however I have included it as a back up position, in a dependent claim. And should you prefer to go with this option, I can amend the draft. Could pursue as divisional, but would be missing light basis. – Too late to claim priority to this application, and published, so is known already – would be prior art. Thus, new application unlikely succeed, unless light truly new. Could expand on meaning of reflector. ✓

- Broaden to one stay – this is possible, and there is basis.

a solid plastic piece, contains drain-slots or channels below

- I have broadened to other flexible wiping arrangements could be used, replacing the rows of bristles. In case you desire to use such in your cheaper styles. The examiner may consider this to be an allowable broadening but there was basis in the spec for different flexible wiping arrangements. ✓

Between and slightly below the upper rows, and below the 30 bottom row, there is a corresponding number of drain-slots or channels 18, i.e. passages through the otherwise solid body of the unit.

The curvature of the unit was also difference to the prior art. Could have amended to this, didn't feel as commercially important to you.

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Wanted to go towards concept of the backward, use o the bristles at least two, guide the moisture downwardly and outwardly, to be conducted away by the channels, from where it drops to the ground. Could add in as option for amendment to specify further. ✓

Amendment chosen

I have chosen to remove road-spray as there is basis for just 'spray'. - lines 14 to 15 on page 4. This slightly broadens the claim, and for example could then cover use of the bicycle on trails, where the spray may not be from a 'road' as such. The examiner may consider this broadening given the inventive concept is towards road spray, however I consider the skilled person would understand that the unit could be used for spray not just directly from a road.

I chose to amend toward the passages in the solid body. As, the channels appeared to be most important commercially to you. Also, they do represent a key difference in prior art. ✓

Language chosen

Disclosures relation to the channels.

As Particularly when there is more than one row of bristles, the channels seem to be essential for avoiding clogging. So this would help with the only one row of bristle.

guide the moisture downwardly and outwardly, to be conducted away by the channels, from where it drops to the ground. The downwardly could be used for future amendments. ✓

The body of the unit, which will generally be a solid plastic piece, contains drain-slots or channels below and between the four banks or sets of bristles, to ensure that the water is expelled rearwards of the bicycle. This was in relation to one embodiment so didn't use this wording, wanted to use generic words to cover all embodiments. ✓

Other flexible wiping arrangements could be used, replacing the rows of bristles. Hence I broaded the claims.

Used basis of 'These channels allow and assist the water swept off the tyre to be expelled rearwards, rather than perhaps on to the row of bristles below or back on to the tyre.' Not the whole sentence as is 'perhaps'. ✓

Back up – dependent claims

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- Specified the passages are channels incase examiner objects that the claim is too broad. Passages may give a broader scope, given time we have to respond, may as well try with this amendment.
- Specified wherein the passages extend through the body at about the same angle as the flexible wipers, as this may important feature in terms of positioning and inventiveness.
- Specify, proceeding claims were the passages are between and slightly below the upper rows. None of the documents suggest more than one passage arranged like this – as such could be a back up claim to further define the passages.
- wherein a corresponding number of passages is provided, this can be further define over the prior art.
- Specified the angle of the bristles, the other docs don't explicit mention a set angle, although they do mention angle can be changed.
- I have broadened out the reflector claims from red to 'reflector is a L-shaped'. Cover the embodiment requested, and the other docs do not explicitly disclose so could be used as a direct amendment.
- Included further dependent to explain reflector in more detail 'two perpendicular reflecting surfaces, so that a reflector is presented rearwards in both disengaged and engaged positions of the unit
- I have gone very broad as we have time to amend, however it may be that we need to specify the positioning of the channels relative to the flexible wipers in order to overcome the prior art. I am hopeful the amendment will be sufficient. If you would like higher chance of success, please let me know and we can amend to a more narrow claim, For example, remove the chance of a objection aagain flexible wipers.
- And also could not have 'spray removal unit' as this may be objected to.

✓

Why it covers embodiment

- Cover one group of bristles – 'at least one' could be one.
- Cover the use of the L shaped reflector ✓
- The pulled away pushed towards is not covered – no basis in spec
- Broadened to flexible wipers – hopefully cover cheaper ones, if move away from bristles all together in future
- You mention you sell cycles too, so have added in a new claim to a bicycle having the unit attached, to cover bicycles too – although in reality anything using the unit would be covered for infringement as use of unit would be infringement. ✓

Future plans

- Working on simpler, cheaper styles with not so many rows of bristles – covered?

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- at least one group of bristles covers only one group of bristles, so one with only one row is covered.

There is basis for *'only one row of bristles would do, but having two or more increases the sweeping action, at the cost of complexity and weight'* in line 19 to 21 on page 5. ✓

For the plans were device stays in circumferential location, pulled away from and pushed towards – don't have basis in current spec to add in.

GB1,111,111 – disclosed the part 11, 12 being hinged and lifted away, so it is raised away and towards. It also discloses being able to adjust the distance of the whole appliance back and forth – so we will need to review in more detail. GB1,111,111 discloses on page 14, lines 8 to 9 *'is spaced clear of the tyre and is itself adjustable to regulate the setting of the device with respect to the tyre.'* And also in lines 1 to 4 *'The distance the brush projects beyond the lower edge of the plates 1 and 5 can be increased or decreased so as to vary the wiping effect on the tyre. Furthermore, the adjustment of the whole appliance can be obtained by adjusting its fastening on the mudguard by means of the slot 2.'* No risk of infringing GB GB1,111,111 with the movement away and towards, but might be hard to protect, device staying in circumferential location, pulled away from and pushed towards may not be very novel. – Need to discuss more with client, see how would work in practice and see differences. ✓

Infringement

The 20 year term for both GB 2020202 and GB 1,111,111 has expired. Not a concern from an infringement point of view. Could look for related patents, see if there have been improvements.

Timing

Deadline of 25 November 2022, can use as of right extension to extend to 25 January 2022 if needed. Compliance date isn't until 2023 so we have time to make amendments/do a few rounds. No need for very narrow amendment as not pressed for time.

Notes to client

Potential too broad - risk

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Notes

GB19 – filed 2019 – published 2020

19 – 4.5 years – 2023 mid at least or from

Both GB 2020202 and GB 1,111,111 the term has expired. Not a concern from an infringement point of view.

GB 1,111,111 – 1948

GB 2020202 – 1988

A long time – would have been combined already if had been that obvious – prejudice against combining them.

MARKS AWARDED: 16/34

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