

**PATENT EXAMINATION BOARD**

**DRAFTING OF PATENT SPECIFICATIONS – GROUP 2(e)**

**Paper 2**

**June 2026**

Examiner: L Steyn

Moderator: J Whittaker

Time: 6 Hours

Total marks: 100

This paper consists of 4 pages (including this cover page) and 6 sheets of figures

**Instructions:**

- Answer all questions
- Write legibly

You receive the below email and figures from your client:

I am an avid mountain biker. I avoid riding on public roads due to safety concerns, and as such, I must transport my mountain bike to my nearest bike park using a bike carrier rack whenever I want to ride. Existing bike carrier racks can be classed according to how they support the bike and how they are mounted relative to the vehicle.

With regards to supporting the bike, two options typically exist:

- 1) Providing supports in which the frame of the bike is received such that the bike hangs therefrom (this is shown in Examples A and B); and
- 2) Providing a platform on top of which the wheels of the bike rest.

With regards to fixing the bike rack to the vehicle, there are also two main options:

Firstly, as shown in EXAMPLE A below, in some cases a mounting bracket is permanently fixed to the tow-hitch mounting frame of the vehicle. This bracket includes, to one side, a sleeve into which a main frame of the bike rack slides. The rack then gets fixed to the sleeve using bolts. This solution is cumbersome, as the rack can only be used with a car to which the mounting bracket has previously been installed. Furthermore, mounting the rack requires tools, such as spanners, and is therefore quite labour intensive.

#### **EXAMPLE A:**



A second option, as shown in EXAMPLE B below, involves a rack that clips onto the rear door or trunk of the vehicle. The advantage of this option is that no permanent bracket fixed or fitted to the vehicle is required. Mounting the rack onto the vehicle also typically doesn't require tools. The drawbacks of this form of bike rack are:

- 1) Adjustments are required based on the size and shape of the vehicle (for example, initial setup is required based on whether the vehicle is a sedan or a hatchback vehicle) and therefore universal use on vehicles having different body shapes is not practical;
- 2) This style of rack is not compatible with all types of vehicles (especially not with pickup trucks and other utility vehicles, which are popular with mountain bikers);
- 3) In some cases, the rear door of the vehicle can no longer be opened when the rack is mounted to the vehicle; and
- 4) These racks can easily damage the bodywork or paint of the vehicle (especially when driving over rough terrain or in dusty environments).

### **EXAMPLE B**



I have now developed a new bike rack which I believe solves the abovementioned problems. I believe my rack can be used with any vehicle irrespective of its body shape, provided the vehicle is fitted with a tow-hitch.

The rack comprises a main frame member 1 on which platforms 2 for supporting the bikes are mounted. It might even be possible to support other objects on these platforms. The main frame member 1 has a hole 3 which extends through an upper and lower surface of the frame member 1, through which the ball 4 of the tow hitch 5 is received. A first concave jaw member 6 is permanently fixed to the main frame member 1. A second, floating concave jaw member 7 is supported relative to the main frame member 1 by a guide formation or track 8 which ensures that the second concave jaw member 7 is only permitted to be displaced in linear fashion relative to the main frame member 1. A pivoting handle 9 is fitted to the main frame member 1, and a link 10 extends between the pivoting

handle 9 and the floating jaw member 7. When the handle 9 is pivoted downward, the second floating jaw member 7 is pulled towards the ball 4, such that the ball 4 is firmly clamped between the first and second jaw members (6 and 7). This locks the rack in place. One feature that I think is particularly useful, is the fact that, as shown in figure 5, when the pin 11 with which the link 10 is mounted to the handle 9 moves below the horizontal, the handle 9 is urged downward and into a locked condition. Only once a user forces the handle 9 upwards will the second jaw member 7 move away from the ball 4 to release the rack from the vehicle.

**Question:**

You are required to draft a patent specification for the invention including at least the following:

- 1) Title
- 2) Background to the invention
- 3) Brief description of the drawings
- 4) Description of the illustrated embodiment
- 5) Claims
- 6) Abstract

Note that no "Summary of the Invention" is required.

Also note that a set of figures without reference numerals is provided – please hand these in with your answer sheet and include the reference numerals you used (your reference numerals may differ from those used above).