Candidate's answer

Statement of Facts and Arguments by the Opponent

This statement accompanies the Notice of Opposition (Form 2300).

Documents

This submission is based on:

A2 – EP1114141, published 20 March 2002
A3 – US2002/0025883, published 13 June 2002
A4 – CA2020300, published 10 November 1999
A5 – DE10140330, published 3 March 2003
A6 – AU2010454545, published 4 January 2011

A2-A5 were published before the earliest priority date of A1 (8 January 2010) and are therefore citable against claims 1-6 under Article 54(2) EPC.

Priority

The feature of claim 3 that the resilient foam material may be a biodegradable starch copolymer and corresponding paragraph 13 were not in the priority document, and this subject matter cannot be derived clearly and unambiguously from the earlier application.

Claim 3 has two alternative options. The "biodegradable starch copolymer" option is only entitled to the filing date of 7 January 2011.

The subject matter of claim 1 is not entitled to its priority date (see below), and is only entitled to the filing date of 7 January 2011.

The effective dates of the claims can therefore be summarised as follows:

Claim	Effective Date
1	7 January 2011
2	8 January 2010
3 "polyurethane"	8 January 2010
3 "starch copolymer"	7 January 2011
4	8 January 2010
5	8 January 2010
6	8 January 2010

A6 was published 4 January 2011, and is therefore prior art under Article 54(2) for claim 1, and the "starch copolymer" portion of claim 3.

1. Claim 1

Claim 1 lacks novelty in view of A6

The subject matter of claim 1 is disclosed in A6:

A6 discloses:

- A razor cartridge (paragraph 3: "razor blades mounted on a support"). According to paragraph 1 of A1, a razor cartridge typically comprises a support to which blades are attached.

- A blade having a straight cutting edge (blades 13, 14, Figure 1).

- A skin engaging element (strip 12 engages with the skin in use – paragraph 10 states that the strip 12 provides a composition to the skin; paragraph 6 states that the strip 12 may pull on the skin in use). It is noted that the term "skin-engaging element" is defined in paragraph 2 of A1 to include a portion to the rear of blades comprising a trailing skin-engaging surface, and therefore encompasses strip 12 of A6.

- At least part of the skin-engaging element (strip 12) comprises a resilient foam material.

The term "resilient" is defined in A4 paragraph 5, as meaning a deformable material that can recover its shape when the deforming force is removed.

Paragraph 6 of A6 states that the strip 12 may be made from a "foamed polymer" that can "recover its shape if deformed".

Thus, paragraph 6 of A6 discloses a resilient foam ("foamed") material.

The effective date of the above subject matter is the priority date of A6 (15 June 2009). A6 has the same applicant as A1 and its priority document, having a date of 8 January 2010.

Thus, the priority document of A1 is not the first application in respect of the subject matter of claim 1. Accordingly, the priority claim for claim 1 is invalid. The effective date for claim 1 is therefore the filing date of A1 (7 January 2011). This is after the publication date of A6 (4 January 2011), and A6 is therefore prior art under Article 54(2) EPC for claim 1.

As discussed above, A6 discloses all of the features of claim 1. Claim 1 therefore lacks novelty over A6.

Claim 1 also lacks novelty in view of A4

A4 discloses:

- A razor cartridge ("blade unit", paragraph 1). According to paragraph 2 of A1, "razor cartridge" is synonymous with "blade unit".

- A skin engaging element ("cap or guard" – paragraph 4 of A4 and definition of "cap" and "guard" in paragraph 1 of A1)

- At least part of the skin-engaging element (cap or guard) comprises a resilient foam material (device 1 attached to cap 40 – paragraph 6, comprises a porous matrix – paragraph 3, in the form of a synthetic foam having "resilient behaviour" – paragraph 5).

Therefore, claim 1 lacks novelty over A4.

Claim 2

Added Matter

- Claim 2 requires a self-adhesive polyurethane foam. Claim 2 was added during examination.

Paragraph 11 of A1 discloses that the resilient foam material may be a polyurethane foam.

Paragraph 15 of A1 discloses the use of a self-adhesive foam such as a foam made from polyvinyl acetate.

There was no disclosure in A1 as filed of a self-adhesive polyurethane foam. Thus, claim 2 comprises added matter.

Claim 2 lacks inventive step in view of A3 and A5

A3 is the closest prior art as it is directed to the same purpose, i.e. providing a razor cartridge having a skin-engaging element exhibiting a high coefficient of friction.

A3 discloses: a razor cartridge (paragraph 1) comprising a blade having a straight cutting edge (blades 51, 52 have straight cutting edges in Figure 1).

- A skin engaging element (guard (paragraph 1) is a skin engaging element according to the definition in paragraph 2 of A1)

The distinguishing features are that the skin-engaging element comprises a resilient foam material made from a polyurethane foam, being self-adhesive.

The technical effects of the polyurethane foam is given in the arguments against claim 3 (and the technical effect, etc.).
The skilled person would arrive at this subject matter using A5 as discussed in the arguments for claim 3.

The other distinguishing feature is that the foam is self-adhesive.

The technical effect of this feature is that the use of a layer of adhesive, and an extra processing step can be avoided (paragraph 15 of A1).

The objective technical problem (partial problem) is therefore how to avoid the use of a layer of adhesive and to consequently avoid an extra manufacturing step.

The solution of providing a “self-adhesive” foam is clearly an obvious one that would naturally occur to the skilled person in view of his common general knowledge. There is no indication that making the foam “self-adhesive” presents any particular technical hurdles in A1.

Thus, claim 2 lacks an inventive step.

Claim 3 lacks inventive step in view of A3 and A5

The closest prior art is A3 because it is directed to the same purpose as claim 3, i.e. tensioning the skin forward of the cutting edge.

A3 discloses:

- A razor cartridge (paragraph 1) comprising a blade having a straight cutting edge (blades 51, 52 in Figure 1).

- A skin-engaging element (guard, paragraph 1, 6; and paragraph 2 of A1)

- The element is arranged to contact (paragraph 6) and tension (paragraph 7 “stretched” is synonymous) the skin forward of the cutting edge (implicit in “guard” (paragraph 2 of A1) and shown in Figure 1 of A3).

The distinguishing feature of claim 1 is that the skin-engaging element comprises a resilient foam material of (a) polyurethane or (b) a biodegradable starch copolymer.

The technical effect achieved by (a) is that an alternative material that has a higher coefficient of friction than rigid plastics such as polypropylene or polystyrene is provided that is easy and cheap to produce (paragraph 10 and 11 of A1, paragraph 3, 7 of A3).

The technical problem is therefore how to provide an alternative material for the skin-engaging element that has a suitably high co-efficient of friction but is easy and cheap to produce.

Faced with this problem, the skilled person would consider A5, which is in a close technical field (safety razors – paragraph 1).

A5 teaches that a resilient foam material (“foam material recovers its original shape” – paragraph 3 – resilient (as per paragraph 5 of A4) is suitable for tensioning skin forward of a cutting edge (paragraph 5 and 6 of A5), and that polyurethane foams are cheap and easy to produce (paragraph 7).

Thus, the skilled person would arrive at the invention as claimed in claim 3 by following this clear teaching.

Claim 3 therefore lacks an inventive step.

Claim 3 also lacks inventive step in view of A3 and A6.

The effective date of part (b) of claim 3 (see above) is 7 January 2011. Thus, A6 is full prior art under Article 54(2) for this portion of claim 3.

A3 is the closest prior art, as for part (a) (same reasons).

The distinguishing feature is that the skin-engaging element comprises a resilient foam material of a biodegradable starch copolymer.

The technical effect achieved by this is to provide an alternative material having a suitably high coefficient of friction that is environmentally friendly (paragraph 12, A1) and is produced from readily available natural materials (paragraph 13).

The objective technical problem is therefore how to provide an alternative material for the skin-engaging element that has a suitable high coefficient of friction but is environmentally friendly, and made from natural, readily available materials.

Faced with this problem, the skilled person wold consider A6, in the same technical field (razors) and would find the solution of claim 3 in paragraph 8 of A6, ("biodegradable foam" can be "starch based copolymer"), and would thereby arrive at the subject matter of claim 3.

Claim 3 therefore lacks an inventive step.

<u>Claim 4 lacks inventive step in view of A3 and A2.</u>

The closest prior art is A2 because it is directed to the same purpose as claim 4, i.e. a razor cartridge having fenced blades (paragraph 1).

A2 discloses:

- A razor cartridge ("razor head" paragraph 1 is a "cartridge" according to paragraph 2 of A1).
- A blade having a straight cutting edge (blade 2, Figure 2).
- A fencing element (paragraph 4)
- comprising a flexible sheet (paragraph 6)
- having a row of aligned holes ("linear row of aperture" – paragraph 5, 6). NB: according to paragraph 18 of A1, a "hole" is synonymous with "aperture".
- With intervals between the holes (apertures) of not more than 0.25 mm wide (paragraph 9 – "strips between apertures").

- The sheet is folded over the cutting edge (paragraph 6 and Figure 2).
- and is secured to the blade (paragraph 6)
- to expose portions of the cutting edge (paragraph 6).
- In A2, the width of the exposed portions of the blade are in the range 0.5-1.2mm (paragraph 9).

Claim 4 requires a sub-range of this range (0.6-1mm).

A sub-range can only be considered novel if, *inter alia*, some new technical effect ("purposive") is achieved using the sub-range. A1 merely states that this range gives "maximum cutting efficiency". A2 states that its broader range avoids reducing shaving efficiency (paragraph 9). Thus, there is no new technical effect achieved by the sub-range of claim 4. According, this feature cannot be considered to be novel.

Thus, the only distinguishing feature of claim 4 is that the flexible sheet is plastic. A2 teaches metal, cloth, laminated materials, and preferable a metal foil (paragraph 8).

The technical effect of this feature is that a lower coefficient of friction is provided relative to metal (e.g. metal foil) (paragraph 17 of A1), providing optimal fencing.

The objective technical problem is therefore how to reduce the coefficient of friction of the fencing.

Faced with this problem, the skilled person would consider A3, which is in the same technical field (fenced razors).

The skilled person would clearly be taught by paragraph 10 of A3 that plastic fencing provides a lower coefficient of friction than metal, and thus increases the effect of fencing.

The skilled person would therefore have a clear motivation to modify A2 with the teaching of A3 to arrive at the subject matter of claim 4.

Claim 4 therefore lacks an inventive step.

<u>Claim 5 lacks inventive step in view of A2 and A3.</u>

Claim 5 is dependent on claim 4.

A2 is the closest prior art for the reasons given for claim 4.

A2 discloses that the holes (apertures) in the flexible sheet extend back from the cutting edge by at least 1.7mm.

Paragraph 9 of A2 discloses that the length of the apertures in the flexible sheet may be between 3 and 4mm. The flexible sheet is folded over the blade (paragraph 6) such that equal portions of the sheet are arranged on either side of the blade (see Figure 2).

Thus, in the configuration of Figure 2, the apertures will extend back from the cutting edge by around 3/2=1.5mm to around 4/2=2mm. 2mm is significantly more than 1.7mm (e.g. by enough to account for the fold).

Thus, A2 discloses the features of claim 5.

The distinguishing features of claim 5 is that the sheet is plastic (as for claim 4).

Thus, claim 5 lacks an inventive step for the reasons given for claim 4 (it is noted that the size of the apertures would not affect the reasoning given for claim 4).

Claim 6 lacks novelty in view of A5

A5 discloses:

- The use in a razor (razor – paragraph 1)
- Of a resilient foam material (foam material – paragraph 1 - is deformable (paragraph 2) and recovers its original shape after use (paragraph 3), and is therefore "resilient" according to the definition provided in paragraph 5 of A4).
- Forward of the cutting edge (the foam material surrounds the blade 2 having circular cutting edges (paragraph 8); the razor is passed over skin in circular motions (paragraph 2)).
- For tensioning the skin to be shaved (paragraph 6 – use of the foam material stretches the skin (tensions) for cutting hairs on the skin (shaving the skin).

Claim 6 therefore lacks novelty in view of A5.

Conclusion

- It is requested that A1 is revoked in its entirety. In the event that the Opposition Division considers maintaining the patent, oral proceedings are requested.

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Examination Committee II: Paper C 2014 - Marking Details

Candidate No

Category	Maximum possible	Marks awarded	
		Marker	Marker
Use of information	45	42	41
Argumentation	55	40	41
Total		**82**	**82**

Examination Committee II agrees on 82 marks and proposes the grade PASS