

Paper Ref	Sheet	Percentage Mark Awarded
<b>FD4</b>	<b>1 of 37</b>	<b>70%</b>

Examiner's use only

Spare set of Claims

### Claims

1. A peg, comprising:
  - a body portion having a tubular shaft connected to a penetrating head; and
  - 5 a side bar having a driving end, a shank, and a head end, the head end extending at an angle to the shank;
  - wherein the side bar is located within the tubular shaft;
  - so that when the driving end is forced along the tubular shaft, the head end is forced from the shaft in a tightly curved path.
- 10 2. A peg according to Claim 1, wherein the side bar carries a flexible cable.
3. A peg according to Claim 1, comprising a pair of side bars.
4. A peg according to Claim 1 or 2, wherein the end of the side bar is provided with an asymmetric screw thread.
5. A peg according to Claim 4, wherein the asymmetric thread has a thread pitch which
  - 15 increases along each of the side bars.
6. A method of securing a flexible wire, comprising:
  - locating a peg in a cavity formed in a substrate, the peg comprising a side bar having an asymmetric screw and carrying a flexible thread;
  - forcing the side bar along a hollow shaft of the peg so that it extends from the tubular shaft
    - 20 of the peg along a curved path and out of the substrate to expose an end of the flexible thread.

Page sub-total  
0

Paper Ref	Sheet
<b>FD4</b>	<b>2 of 37</b>

Examiner's  
use only

**[Instruction to Candidate: Save your Answer document to your computer as a Word document. Convert the Answer document to a PDF. Check and then Upload the PDF-ed Answer document to the PEBX system.]**

Construction

Feature	Claim language	Construction
1.1	A peg, comprising...	<p><i>A peg...</i> sets the scene, identifies the field of the invention. <i>Peg</i> refers to anchoring pegs – p3 L2 – i.e., structure that can be used to support another item, for example a telegraph pole – p3 L4 – and support the item by being driven into a substrate – p4 L6-8 – e.g, the ground. However, not limited to this field of use as p4 L1-2 consider the disclosed pegs suitable for medical use – however this is contingent on the combination of the asymmetrical thread and bent end. The asymmetrical thread is not present in claim 1, therefore questionable whether the peg of claim 1 could be considered suitable for medical use. Consider purchase to check, and check with client.</p>

Page sub-  
total  
**1**

Paper Ref	Sheet
FD4	3 of 37

Examiner's  
use only

		<p>In embodiment of figures 5a-5d, peg 50 is removed once sutures are inserted – p7, l1-3.</p> <p>In both above scenarios, a cable/suture is secured to the substrate, allowing the suture to be used as an anchor.</p> <p>A peg therefore construed as a structure used to secure a flexible line (cable, suture) to a substrate.</p> <p><i>Comprise</i> – open wording. The peg must include the following features, but can include further features in addition to these.</p>
1.2	a body portion having a tubular shaft connected to a penetrating head;	<p><i>A body</i> – structure having the following features that houses the side bar - P5 L1-3</p> <p><i>Having</i> – open wording, body portion can include other features.</p> <p><i>a tubular shaft</i> – In the exemplary embodiment in figures 2 and 4, the</p>

Page sub-  
total  
0

Paper Ref	Sheet
FD4	4 of 37

Examiner's use only

		<p>tubular shaft is a cylindrical tube – p4 L22-23. Function of body is to house the side bar – P5 L1-3. I see no reason why the tube must be cylindrical as in the examples. Therefore I construe the tubular shaft as a hollow body of any shape capable of housing the side bar.</p> <p><i>Connected to</i> – encompasses the penetrating head not being integrally formed with the tubular shaft, as in figure 4 - P6 L10-11 – penetrating head is <i>secured to</i> lower end of tubular shaft.</p> <p><i>Penetrating head</i> – purpose is to penetrate the <u>earth</u> that the peg is driven into – P4 L22, P5 L14 – 15. Need not be suitable for penetrating earth as the application considers medical use – P3 l27-28. In addition, in medical use at least, penetrating head is inserted into a wound – P6 L23-25 – and does not form the hole itself but “<i>is shaped to allow the</i></p>
--	--	---

1

Page sub-total  
1

Paper Ref	Sheet
FD4	5 of 37

Examiner's  
use only

		<p><i>device to be inserted into the wound". I therefore construe the penetrating head to be a part of the body that allows the peg to be inserted into the substrate.</i></p>
1.3	<p>And a side bar having a driving end, a shank, and a head end, the head end extending at an angle to the shank</p>	<p><i>A side bar – as above, comprising is open wording. The peg may therefore include more than one side bar (and also the following features), but must include at least one side bar. Multiple side bars discussed in relation to figure 4 - P6, L13-14. Claim 3 is also dependent on claim 1, and defines a pair of side bars, and hence further implies that c.1 can include more than 1 side bar.</i></p> <p><i>Side bar – part that is driven out the side of the body portion – P5 L15-17 – to secure the peg in the substrate – P5 – L20-21 – since when the ground bar is extended, the ground peg can only be uprooted by digging or applying a large pulling force. However, p6, l30-p7, l3 –</i></p>

1

1

Page sub-  
total  
2

indicates that side bars can be withdrawn after insertion, the result being that the sutures are secured to the substrate. Therefore, side bar encompasses both of these purposes. Both of these purposes result in the flexible line (cable, suture) being secured to the substrate. Therefore side bar functionally construed as part that is driven out of the body of the peg to provide anchoring of a flexible line.

*Having* – open wording, side bar can have other parts

*A driving end* – end that is engaged by a drive tool to force the side bar out of the body portion – P5 L15-17; P6 L25-26.

*A shank* – elongate part of the side bar that connects the driving end to the head end – P4, L26-28.

*A head end* – pointed end of the drive bar that allows it to penetrate through

1

Paper Ref	Sheet
<b>FD4</b>	<b>7 of 37</b>

Examiner's  
use only

		<p>the substrate into which the side bar is driven – P5, L14 – 21; P6, L16; P6 L26 - 29. Can be removable – P6 L5.</p> <p><i>The head end extending at an angle to the shank</i> – the head end is bent and extends at an angle to the axis of the elongate shank of the side bar. Rests on deflecting surface – p5 L2 – thereby preventing the side bar from exiting the housing before being forced.</p>	<p>1</p> <p>1</p>
1.4	wherein the side bar is located within the tubular shaft	<p><i>Within</i> – In the specific example, the side bar is shorter than the tube – P5, L1-3 – and therefore will be housed <i>entirely</i> within the tubular shaft. A similar arrangement is shown in figure 4. However, I see no reason why the side bars are required to be housed entirely within the housing to perform their function of being driven out of the housing to secure the peg. Hence, 1.4 requires the side bars to be partially housed within the tubular shaft. The part that is housed within the tubular shaft</p>	

Page sub-  
total  
2

Paper Ref	Sheet
FD4	8 of 37

Examiner's  
use only

		<p>must include the head end, so that the head end is bent when driven out of the tubular shaft, in accordance with the side bars function, as per the construction of the following feature.</p> <p>Within = in the unused state since side bars leave the peg one driven out.</p>
1.5	<p>so that when the driving end is forced along the tubular shaft, the head end is forced from the shaft in a tightly curved path</p>	<p><i>So that when...</i> - i.e., in use, when the side bar is forced, the following effect is achieved. The peg is therefore claimed in its used and unused state.</p> <p>The shaft – no antecedence – assume refers to tubular shaft.</p> <p><i>Tightly curved path</i> – P5, L19 – indicates this is a constant radius, however also may be non-circular – P3, I26. P5, L22-24 indicates that the radius of curvature of the extended side bar is determined by the relative positions of the elements bearing on the side bar.</p> <p>None of these elements are claimed. Is the claim therefore a result to be achieved? For the purposes of this</p>

1

Page sub-  
total  
1



		<p>assessment, I will assume that the claim is not an unallowable result to be achieved. Effect of the relatively tight curvature is that the side bar may protrude from the substrate in which the peg is inserted – pP6, I7-9; P4, I9-11. Hence, I construe <i>tightly curved path</i> to be a path that may result in the peg protruding from the surface of the substrate if driven to its fullest extent.</p> <p><i>Forced from</i> -forced out of the shaft and into the substrate – P5, L14-21; P6, L26-29.</p>
2.1	A peg according to Claim 1	The peg must include all the features of c.1, plus the following.
2.2	<i>Wherein the side bar carries a flexible cable.</i>	<i>Carries</i> – P6, L3-6 indicates that cable may extend along length of side bar, or extend through a bore. Cable need not be rigidly attached to side bar since it may be drawn through the side bar – P6, I7-9 – and hence cannot be rigidly

1

1

		<p>attached. Purpose of side bar carrying cable is so that cable is secured to peg and to the article being anchored – P6, I9 – <i>tethered to article</i>. Carried therefore construed to mean that side bar is coupled to cable, such that cable can anchor another item to the substrate once installed.</p> <p><i>Flexible</i> – able to be deformed and return to its original form without damage. Consistent with the need for the cable to follow the curved path defined by the side bars – P6, I3-6.</p> <p><i>Cable</i> – not strictly limited to cable as other structures considered, e.g, flexible line, wire, or cable – P4, L8 – and sutures – P6, description of figures 5a to 5d. Cable therefore construed broadly as a flexible line.</p>

1

1

Paper Ref	Sheet
<b>FD4</b>	<b>11 of 37</b>

Examiner's  
use only

3.1	<i>A peg according to claim 1</i>	The peg must include all the features of claim 1, as well as the following.
3.2	<i>Comprising a pair of side bars.</i>	<p><i>Comprising</i> – open wording, must include at least two side bars, but may include more than two.</p> <p><i>Pair</i> – patentee has chosen the word pair rather than two. As can be seen in figure 4, the “pair” of side bars have the same shape, but are arranged in opposite directions in the tube. “pair” therefore means that the at least two side bars are either the same as each other, or correspond to one another.</p>
4.1	<i>A peg according to claim 1 or 2,...</i>	The peg must include all the features of claim 1, or all the features of c.1 + c.2. C.2 is therefore optional.
4.2	<i>Wherein the end of the side bar is provided with an asymmetric screw thread.</i>	<i>The end</i> – no antecedent basis. Screw thread only disclosed on the head end, i.e., pointed end – see figures 2, 3, 4, P6, I19-21; Therefore, the end

1

Page sub-  
total  
1

Paper Ref	Sheet
FD4	12 of 37

Examiner's  
use only

		<p>interpreted as the head end as construed above.</p> <p><i>Provided with</i> – the side bar has a thread, rather than it receives a thread from somewhere else – see figures 3, 4, for example.</p> <p><i>An asymmetric screw thread</i> – specific examples include continuously changing thread pitch, distinct regions along the length in which pitch is different, or discontinuous over the length of the side bar – P4, I3-6. However, these are examples and non limiting. Purpose of asymmetric thread is to encourage the side bar to adopt a reduced curvature compared to a sidebar with symmetric/no thread – P3, I27-28. Hence, asymmetric thread is construed as a thread that achieves this function, and must encompass the specific examples of P4, I3-6.</p>

1

1

Page sub-  
total  
2

5.1	<i>A peg according to claim 4...</i>	The peg must include all the features of C1+C4, C1+C2+C4, as well as the following. However, no antecedent basis in these claims for side bars since c.1 only defines a side bar. Basis for bars only comes from c.3, which c.4 is not dependent on. Dependency of either c.5 (should be c.3) or c.4 (should be any preceding claim) is wrong. Therefore will construe c.5 as at least dependent on c.3.
5.2	<i>wherein the asymmetric thread has a thread pitch which increases along each of the side bars</i>	<i>Thread pitch</i> – distance between adjacent turns of the thread – P5, I4-5.  <i>Increases along each of the side bars</i> – so that the pitch at the bent head is smaller than the pitch along the shaft of the side bar – p5, I4-7. This is the only exemplary direction in which the pitch increases, and no reason to assume reverse direction would work. Therefore construe <i>along</i> to mean specifically in the above direction.

1

1

1

Paper Ref	Sheet
<b>FD4</b>	<b>14 of 37</b>

Examiner's  
use only

		<p><i>Each of</i> – both of the side bars individually – see figure 4, P6, I19-21.</p>
6.1	<p><i>A method of securing a flexible wire, comprising:</i></p>	<p>A new independent claim, different claim category – i.e., method, not apparatus as above.</p> <p><i>Securing</i> – secured to what? Secured to a substrate – e.g. earth – P4, 22-23, or patients tissue – P6, 22-25.</p> <p><i>Flexible wire</i> – as above re. 3.1 – able to be deformed and return to its original form without damage. Consistent with the need for the cable to follow the curved path defined by the side bars – P6, I3-6.</p>
6.2	<p><i>locating a peg in a cavity formed in a substrate, the peg comprising a side bar having an asymmetric screw and carrying a flexible thread</i></p>	<p>Peg – as construed above re. c.1</p> <p><i>In a cavity formed in a substrate</i> – cavity may be formed by the peg – P4, I22-25 (hole formed by earth penetrating pointed head) – or be preexisting – p6, L22-25 (peg is located within a wound).</p>

1

Page sub-  
total  
1

Paper Ref	Sheet
FD4	15 of 37

Examiner's  
use only

		<p><i>Substrate</i> – material to which wire is to be coupled.</p> <p>Comprising – open wording, may include other features.</p> <p><i>Side bar</i> – as construed above at 1.3</p> <p><i>Asymmetric screw</i> – as above re. 4.2.</p> <p>Noted different wording – screw thread vs thread – both consistent with use in description – e.g., p5, l4. No basis for other forms of screw.</p> <p><i>Carrying a flexible thread</i> – as above re. 2.2. the side bar carrying the thread (rather than the peg).</p> <p>Inconsistent use of flexible thread and flexible wire as in 6.1. Assume this is typo, and thread being carried is the “wire” being secured.</p>	<p>1</p> <p>1</p> <p>1</p>
6.3	forcing the side bar along a hollow shaft of the peg so that it extends from the tubular shaft of the peg	<p><i>Forcing the side bar along</i> – the ends of the side bar are engaged by a tool and driven downwardly – P6, l25-26.</p> <p>Downwardly = towards the end of the</p>	

Page sub-  
total  
3

	<p>along a curved path and out of the substrate to expose an end of the flexible thread</p>	<p>peg that is inserted into the substrate – see figures 5a-d.</p> <p><i>Hollow shaft of the peg</i> – as above re. tubular shaft of c.1 ✓</p> <p><i>So that it extends from the tubular shaft</i> – it = the side bar. Tubular shaft inconsistent with hollow shaft as used previously. Again assume typo, both referring to hollow, tubular shaft of peg – as described p4, I22-23.</p> <p><i>extend from</i> – driven out of the hollow tube so that they can penetrate the surrounding substrate – p6, I25-29.</p> <p><i>Along a curved path</i> - P5, L19 – indicates this is a constant radius, ✓ however also may be non-circular – P3, I26. Construed therefore as non-straight path.</p> <p><i>Out of the substrate to expose an end of the flexible thread</i> – side bars follow path through the substrate that causes</p>
--	---	--

1



Paper Ref	Sheet
<b>FD4</b>	<b>17 of 37</b>

Examiner's  
use only

		<p>them to protrude from the e.g., skin – p6, I29-30.</p> <p><i>An end</i> – an end opposite the end being driven – see figures 5a-5d.</p> <p><i>To expose ...</i> such that the ends of the threads are able to be pulled through the side bars – p6, I29-30.</p>
--	--	--

D

1

Cons

24

MARKS AWARDED: 24

Page sub-  
total  
1

Infringement

I will now consider whether any of the clients acts infringe the claims of doc a.

Doc B describes two products – Accu-Stitch and the non-circular needles shown in figures E-F. Non-circular needles will not, by themselves, infringe any of the product claims to peg.

I will not therefore consider infringement in relation to improved needles.

Feature	Present in Accu-Stitch (AS)?	Basis
1.1	Yes	AS used to secure flexible line (sutures) to tissue – see p13, figures A to D.
1.2	Yes	<p>Elongate body – p13, penultimate line.</p> <p>Tubular shaft – flexible needles are located within the body – p14, l1-2, therefore capable of housing side bars.</p> <p>Penetrating head – rounded leading end – p13, penultimate line – consistent with not needing to form hole itself. Shown inserted into wound in figures.</p>

1

Paper Ref	Sheet
<b>FD4</b>	<b>19 of 37</b>

Examiner's  
use only

1.3	Yes	<p>flexible plastic needles are located within housing – p14, I1-2 – and provide anchoring of the suture by providing hole in tissue for suture to pass through.</p> <p>Needles are driven – p14, I10 – so must have driving end.</p> <p>Shank – see figures A-D – needles have elongate body</p> <p>Head end/at an angle – yes – pointed end is bent upwardly in the supplied condition shown in figure A – p14, I4-5.</p>
1.4	Yes	In supplied condition, the head end of the needle is within the tubular shaft – figure A, P14, I4-5.
1.5	Yes	See figures – in use, needles are forced along path and into substrate. Continued forcing causes needle to protrude from skin – p14, I10-11.

1

1

1

**Page sub-  
total**  
**3**

Paper Ref	Sheet
<b>FD4</b>	<b>20 of 37</b>

Examiner's  
use only

	Conclusion	Accu-Stitch includes all the features of c.1
2.1	Yes	As above
2.2	Yes	Suture material attached to opposite end to pointed end – p14, l1-2.  Suture material falls within my construction of cable, but court may take different view.
	Conclusion	AS includes all features of c.2
3.1	Yes	As above, all features of c.1 present
3.2	Yes	Pair of flexible needles – p14, l1-2.
	Conclusion	AS includes all the features of c.3
4.1	Yes	As above, all features of c.1, and c1+c2 present
4.2	Yes	Not indicated whether grooves – p15, l3-5; figures E-G – achieve the function of asymmetrical screw thread (AST), however as construed

1

1

Page sub-  
total  
2

Paper Ref	Sheet
<b>FD4</b>	<b>21 of 37</b>

Examiner's  
use only

		the AST must include a thread which is discontinuous over the length of side bar – as shown in figures E-G – “flat part” vs “curved part bearing groove”. Hence, thread of Doc B is discontinuous, and therefore within the scope of AST claimed.	
	Conclusion	All features of c.4 present	
5.1	Yes	All features of c.1, c.3, and c.4 present. C.3 required to address lack of antecedence. ✓	1
5.2	No	No indication that thread pitch varies along the side bar.	1
	Conclusion	All features of c.5 not present	
6.1	Yes	Sutures secured to substrate – figures A-D, and P14, L22.	1
6.2	Yes	body of AS is inserted into wound figure A.	

Page sub-  
total  
3

Paper Ref	Sheet
<b>FD4</b>	<b>22 of 37</b>

Examiner's  
use only

		<p>As above re. 1.1, peg of AS comprises a side bar.</p> <p>As above re. 4.2, side bar has an asymmetric screw thread</p> <p>As above re. 2.2, side bar carries a flexible thread – i.e., medical suture – P14, I2.</p>
6.3	Yes	<p>Needles forced along body – p14, I8-9.</p> <p>Needles driven out of tube and into substrate (skin) – p13, I8-14.</p> <p>Follow non-straight path – see figures, needle turns back on itself so cannot be considered a straight path (court may take different view on this point sine path once left the body is substantially straight) – and needles protrude from the skin – p14, I10-14.</p> <p>End of thread is exposed as it can then be grasped and pulled free – p14, I15-17.</p>

—

1

Page sub-  
total  
1

Paper Ref	Sheet
<b>FD4</b>	<b>23 of 37</b>

Examiner's  
use only

	Conclusion	Use of AS comprises all the features of c.6
--	------------	---

Client does not appear to have performed any infringing acts yet as they have not yet brought their product to market – they have only performed experiments to date – p2, l10-11. However, eventual manufacture and sale (and other acts of disposal, offering to dispose, importation, keeping) will infringe c1 to c4 of doc A. experimental work will be exempt under s.60(5) PA as experimental purposes.

Use of the AS in the method of c.6 will also infringe doc a. However, this is a method of surgery (in as far as it relates to sutures) and hence unpatentable.

Client's commercial customers would also infringe at least by keeping and disposing off AS.

There may also be a case that client would infringe under s.60(2)PA by sale of their non-circular needles – however there is no indication that the client intends to do so and I will not therefore consider in detail here.

0.5

2

D C

12.5 Inf

MARKS AWARDED: 12.5

Page sub-  
total  
2.5

Novelty

The effective date of document A is its filing date – 15<sup>th</sup> June 2021.

Doc C was published 24<sup>th</sup> April 2012, before the effective date of doc A, and is therefore prior art under S.2(2)PA, and relevant for novelty and inventive step.

The known ground peg illustrated in figure 1 of Doc is also presumably prior art under s.2(2)UKPA because the patentee has included it in their specification, and hence it must have been available before the above effective date.

The thigh bone screws described in the client's letter are also prior art under s.2(2) UKPA as they have been well known for many years. However, the thigh bone screw is not a peg having side bars etc, and is not used to secure wires (c.f. p2, L25-28 – instead used to lock plates to bone) and hence will not be considered in detail under novelty.

Feature	Present in Doc C?	Present in Doc A, Figure 1?
1.1	Yes - Stake for anchoring to the ground and attachment of a cable – p16, I9-11.	Yes – p4, I17
1.2	Yes - Tube 3 is hollow and capable of housing side bars as it houses rods 4 – P16 L9-11; figure 2. Further includes penetrating tip 8.	Yes – shaft and head, figure 1.

1

1

1

1



Paper Ref	Sheet
<b>FD4</b>	<b>25 of 37</b>

Examiner's  
use only

1.3	Yes – rods 4 are pushed axially into the ground and ensure secure anchorage – p16, l28 to 29. Therefore, by providing secure anchorage, the rods provide anchoring of the cable attached to collar 5 – p16, l9-11. <span style="color: red;">1</span>	No - Side bars present – see figure 1 – but described as linear – p3, l19-20. Hence, head end does not extend at an angle to the shank.
1.4	No – head end, in the unused state, is not within the tubular shaft – see figure 2, ends 4a. <span style="color: red;">—</span>	Yes – before being hammered, linear side bars will be within tubular shaft – p3, l5-8. <span style="color: red;">1</span>
1.5	No – no explicit indication that, when driven to their fullest extent, rods 4 may protrude from the surface. However, this may be implicit since the rods deform to occupy a large area – p16, l38-39 – I will assume this feature is not disclosed since no explicit indication.	No – almost parallel to the tube – p3, l12-13 – this is the problem patentee seeks to solve. <span style="color: red;">—</span>

1

1

Page sub-  
total  
2

Paper Ref	Sheet
<b>FD4</b>	<b>26 of 37</b>

Examiner's  
use only

	c.1 novel	c.1 novel	
2.1	No – as above	No – as above	
2.2	No – cable is instead attached to collar 5 – p16, I9-11.  1	Yes – side bar used to drive tether into the ground - p3, I17-19. Hence coupled to the side bar as being driven —	1
	c.2 Novel by itself and by dependency	Novel only by dependency	
3.1	No as above	No as above	
3.2	Yes – rods 4.	Yes – side bars, figure 1.	2
	c.3 novel only by dependency	Novel only by dependency.	
4.1	No as above	No – as above	
4.2	No – no indication that rods 4 have any sort of screw thread.	No – no indication that rods 4 have any sort of screw thread.	1
	c.4 novel by itself and by dependency on c.1 and c.2	c.4 novel by itself and by dependency on c.1	

Page sub-  
total  
4

Paper Ref	Sheet
<b>FD4</b>	<b>27 of 37</b>

Examiner's  
use only

5.1	No -as above	No - as above
5.2	No – no indication of thread	No – as above.
	c.5 novel by itself and by dependency	novel by itself and by dependency
6.1	Yes – cable is secured to collar 5 of tube 3 – p16, 19-11.	Yes – p3, 114-15 – cables secured to peg.
6.2	No – rods 4 do not comprise an asymmetric screw – as interpreted to mean screw <i>thread</i> .  Also, rods 4 do not carry a thread – cable is coupled to collar 5.	No – side bars carry a flexible thread – as above re 2.2, but no asymmetric screw thread as construed.
6.3	No – no explicit indication that side bar extends out the substrate. Thread not coupled to rods 4 (coupled to collar, p16, 9-11) hence cannot subsequently expose	No – side bars of figure 1 do not turn back on themselves so cannot subsequently protrude from the substrate.

1

1

1

1

1

1

Page sub-  
total  
4

Paper Ref	Sheet
<b>FD4</b>	<b>28 of 37</b>

Examiner's  
use only

	the end of the flexible thread. <span style="color: red;">1</span>	
	c.6 novel	c.6 novel

1

D C

1

16 nov

**MARKS AWARDED: 16**

**Page sub-  
total**  
2

Paper Ref	Sheet
<b>FD4</b>	<b>29 of 37</b>

Examiner's  
use only

Inventive Step

Using the Pozzoli/windsurfing approach:

The skilled person (PSA) is an engineer working in the field of anchoring pegs – p3, l2. I will not consider the skilled person more narrowly because Doc A considers that the claimed pegs are useful as ground pegs – p3, l2 – and useful medically – p4, l1-2. The skilled person therefore has knowledge of both pegs used as land anchors and those used in medical scenarios.

1

Courts may disagree with this interpretation of PSA given difference in fields of land anchors and medical anchors. In which case, the combination of teachings from different fields may indicate an inventive step. However, for the following analysis, I will assume the PSA is an engineer of all anchoring pegs.

The PSA's CGK includes:

- The femur or thigh bone screws described p2, l25-28 – “*well known for many years*” (may be debated by court in view of above discussion of PSA).
- Earth anchor shown in figure 1 – “*well known*” – p3, l19-20
- Background of Doc A – P3, l5 – 20.

1

Claim 1

The inventive concept is improved anchoring by causing the head end of the side bar to be deformed into a tightly curved path – p5, l20-21 – *can only be uprooted by diffing or applying a v. large pulling force.*

1

Page sub-  
total  
3

Paper Ref	Sheet
<b>FD4</b>	<b>30 of 37</b>

Examiner's  
use only

Doc C is considered to be state of the art as it describes an improved anchor that achieves secure anchorage. The skilled person would therefore seek to further improve this anchorage, and doc c is state of the art.

1

The difference between c.1 and doc c is that i) the rods, when driven to their fullest extent, do not protrude from the surface – as tightly curved has been construed, and ii) that the head end of the side bars are located within the tubular shaft .

0.5

Difference i) appears obvious in view of doc C since the rods after deformation are said to occupy a large area – p16, l28-29, and hence may necessarily extend above the surface dependent on depth of insertion of the plug. Hence difference i) appears at least obvious, if not lacking novelty, over Doc C.

In my opinion, difference ii) is obvious in view of Doc C in combination with CGK. As above, figure 1 discloses a known peg in which the side bars are entirely located within the tubular shaft. Hence, the skilled person is aware of this configuration and hence would implement it into doc c without the use of inventive skill.

1

Claim 1 is therefore obvious.

### Claim 2

The inventive concept of claim 2 is that the side bar carries the cable, rather than it being attached to the housing, allowing the wire to be directly coupled to the substrate – p4, l9-11.

Page sub-  
total  
2.5

Paper Ref	Sheet
<b>FD4</b>	<b>31 of 37</b>

Examiner's use only
1
1
0.5
1
1
<b>Page sub-total</b>
<b>5.5</b>

The difference between c.2 and doc C is that cable in doc c is anchored to the collar.

This difference would have been obvious in view of the skilled person's CGK. As above re. figure 1 of doc A, it is already known to use the side bars to carry the cable into the substrate, and with the intention of improving tension – p3, l17-19. The skilled person would therefore have used this same technique with doc c, and as such carried the cable with the side bar, without the use of inventive skill. c.2 therefore lacks an inventive step.

Claim 3

As above, a pair of side bars is already known from doc C, and from the PSA's CGK. There is no difference between c.3 and doc c, and c.3 cannot therefore provide an inventive step.

Claim 4

The inventive concept of c.4 is encouraging the side bar to adopt a reduced radius of curvature – p3, l27-28.

The difference between c.4 and doc C is the that the side bar is provided with an asymmetric screw thread.

This difference would not have been obvious. The only known disclosure of an asymmetric screw thread comes from the femur/bone screw of the client letter.

While the skilled person may be aware of this type of bone screw (as per my

Paper Ref	Sheet
<b>FD4</b>	<b>32 of 37</b>

Examiner's  
use only

above construction of the skilled person – court may disagree), there is no teaching that this type of screw thread would improve the anchoring characteristics of a ground anchor as in doc c. There is therefore no teaching that would have lead the skilled person to combine the teaching of these documents as it is not apparent what improvement would be achieved.

Alternatively, if the court disagreed with my interpretation of the skilled person and limited their expertise to only ground pegs, the skilled person would not be aware of the femur screw pointed to by the client as it would not form part of their cgk.

Claim 4 is therefore inventive.

#### Claim 5

Similar arguments as in relation to claim 4 apply to claim 5. There is no teaching that would have led the skilled person to think that an improvement to the ground screw of doc C could be achieved by applying the thread of CGK in clients letter. Moreover, thread in clients letter does not increase as per my construction, i.e, distance between adjacent turns does not appear to change, but rather the angle of the thread changes.

Claim 5 therefore inventive.

#### Claim 6

2

Page sub-  
total  
2



Paper Ref	Sheet
<b>FD4</b>	<b>33 of 37</b>

Examiner's  
use only

Using Pozzoli/windsurfer – the skilled person is a user of anchoring pegs – p3, l2 – same considerations apply as above re skilled person of peg claims.

Their CGK is as above re peg claims.

The inventive concept of c.6 is that the side bars follow a curved path out of the substrate, allowing the thread to be coupled directly to the substrate – for example when suturing a wound – paragraph bridging pages 6 and 7.

0.5

Doc C does not disclose that the rods 4 exit out of the ground at their fullest extent to expose an end of the thread. Instead, the thread is coupled to the peg.

1

This difference is not obvious in view of doc C and CGK. While the skilled person may be aware of using the side bars to carry a cable into the ground, as per figure 1 doc A, it is unclear how this would result in the thread being exposed above the surface if the side bar eventually exited the substrate. For example, no coupling mechanism is provided to allow the side bars to carry it this distance, and the rods of doc c are not hollow (as they are in figures 5a to D of doc A).

1

Therefore, doc c, nor the PSA's CGK provides them with any teaching that enables them to provide a side bar that can carry a thread all the way through the substrate and out of the surface of the substrate. Moreover, simply carrying the thread at the distal end appears incompatible with the bending mechanism of doc C – the thread would likely snag on edges of holes 9 and surface 12. No teaching to make rods hollow as required.

Claim 6 is therefore inventive.

15.5

Is

MARKS AWARDED: 15.5

Page sub-  
total  
2.5

Paper Ref	Sheet
<b>FD4</b>	<b>34 of 37</b>

Examiner's  
use only

Sufficiency **1**

No obvious sufficiency issues.

**MARKS AWARDED: 1**

**Page sub-  
total**  
**1**

Paper Ref	Sheet
<b>FD4</b>	<b>35 of 37</b>

Examiner's  
use only

Amendment 0

MARKS AWARDED: 0

Page sub-  
total  
0

Paper Ref	Sheet
<b>FD4</b>	<b>36 of 37</b>

Examiner's  
use only

Advice

Status of Doc A:

Claim 1 invalid for lack of inventive step, claim 6 appears to be valid.

No renewal fees yet due for Doc A.

Infringement:

- As above, client has not yet begun infringement. However, future acts in relation to the AS device would infringe at least c.1, c.2, c.3, c.4.
- Of these, c.4 appears to be valid. Doc A could therefore be amended to restore validity by combining c.1 and c.4
- Advise client not to start producing.
- Selling may AS may also infringe under S60(2) UKPA as means essential to the invention of c.6.
- However, c.6 encompasses a method of surgery and is therefore invalid in as far as it encompasses surgery.
- Seek partial revocation of Doc A since C.6 is invalid for encompassing a method of surgery, and remaining claims not novel/inventive.
- Indicate will seek revocation of doc A unless granted licence on reasonable terms.

0.5

Page sub-  
total

0.5

Paper Ref	Sheet
<b>FD4</b>	<b>37 of 37</b>

Examiner's  
use only

- Client may be able to patent the slidable collar.
- Request a complete translation of document C to ascertain the full extent of its disclosure.

0.5

Advice **1**

**MARKS AWARDED: 1**

Page sub-  
total  
0.5