2013 PAPER P6
SAMPLE ANSWER 3

This script is an example of an answer to the above examination question paper. The answer received a pass mark. It is a transcript of the handwritten answer provided by the candidate, with minimal re-formatting to improve readability.

We hope you will find it helpful when preparing for this examination, but please note it is not a model answer. You may also find the Examiners' Reports and the Final Examination Guidance Documents useful too. You will find these in the Examination Support area of the PEB website.

Construction

Claim 1 - independent, product claim

1.1: Apparatus - cleaning water

Sets field, ie water cleaning

'Apparatus' has multiple parts because p. 3, l. 31 refers to components of the apparatus

1.2: for

Means suitable for, but not limited to, cleaning water.

1.3: comprising

Includes the following features, but may include others (ie non-exclusive)

1.4: a holding tank

Page 5, l. 6-10 describes function of holding tank, i.e. to retain water until it runs over the weir into a further storage vessel. Therefore, the holding tank will retain water for a period of time, but it is not the main storage vessel.

Also holds water for sufficient length of time for small particles to settle out – see p 5, l. 12-13.

Therefore, the 'holding tank' is separate to the storage vessel but retains water for long enough for particles to settle out.

1.5: a central aperture

"Aperture" refers to a gap in a surface, eg feature (13) shown in Figure 1 of Doc. A.

"Central" indicates positioning of aperture is in the centre (i.e. middle) of the holding tank. However, noted on p. 6, l. 27-30 that central location is not critical therefore, skilled person would understand that upstanding pipe does not need to be in exact centre to achieve function (see feature 1.6 + 1.8), i.e. to allow passage into storage vessel.

1.6: through which extends an upstanding pipe

"which" refers to central aperture because this appears to be the most reasonable interpretation in the context of the claim. Also see p. 4, l. 18-20 which describes a

tube “which extends both up from and below the aperture” (i.e. extends through aperture).

“Upstanding” suggests vertical orientation which is shown in figures. I would understand their feature to refer to vertically orientated pipes because this allows for the weir to be created (see feature 1.8)

“Pipe” referred to as “tube” on p. 4, l. 19 which suggests feature refers to cylindrical tubes. Nothing to suggest in description that this term should be construed more broadly therefore I would construe this feature to refer to cylindrical tubes.

1.7: the uppermost edge of which

“Of which” is referring to the upstanding pipe because this construction appears to make the most sense in the context of the claim.

“Uppermost edge” appears to take its usual meaning i.e. the end located at the top of the upstanding pipe. Also see p. 5, l. 7-8 which suggests this construction.

1.8: providing a weir

Page 5, l. 6-13 describes purpose of weir i.e. to retain water long enough to allow particle to settle out from the held water, but then overflow by gravity into a storage vessel. Therefore the function of this feature is to show the flow of water into the storage vessel to allow particles to settle out from the held water.

1.9: the holding tank having a filter material

“filter material” appears to take its usual meaning, i.e. to remove any particles from the liquid that are larger than the filter hole size (e.g. see p. 5, l. 3-4).

Repercussive effect from dependent claim 4 which refers to “mesh” as a specific embodiment of filter material, therefore I would understand this term to refer to any material which is able to remove “relatively large entrained detritus” (see p. 5, l. 3) from the water.

1.10: provided across its top

“its” appears to refer to the holding tank because this construction appears to make the most sense in the context of the claim.

“top” dos not appear to have to be the absolute top of the holding tank because embodiment one has the mesh on a ledge (22) which is located “at or near the top edge” (see p. 4, l. 34). Therefore, I would understand “top” to refer to the upper part of the holding tank, i.e. above half-way.

Claim 2 - independent, product claim

2.1: Water cleaning and storage apparatus sets field ie this claimed apparatus requires dual purpose of water cleaning and storing the water.

2.2: comprising
Includes the following features but may include others.

2.3: a water storage tank
In light of feature 2.8 (see later) this tank refers to a storage compartment which is separate from the holding tank. Therefore, I would understand this feature to refer to the part of the apparatus which stores the water until it is wanted for use.

2.4: a top wall
Refers to the top of the storage tank, for example see page 5, l. 19-21 which describes the top wall (103) of a storage tank.

2.5: through which a pipe extends
Similar to feature 1.6 in that a "pipe", ie cylindrical tube crosses through the top wall. No reference to the pipe being 'upstanding', ie vertical, in this claim, however would weir be able to be formed if pipe was not vertical? Would not appear so because a horizontal pipe would not be able to show the flow of water.

Therefore, requirement of "upstanding" appears to be missing from this claim.

2.6: one end of the pipe providing a weir
As described in feature 1.8, a "weir" acts to slow flow of water to allow particles to settle out. "One end" implies either end of pipe may act as a weir, however, as described in 2.5, the pipe needs to be vertical in order to act as a weir, therefore the "end" would be required to be the upper end in order to slow the flow of water.

2.7: a peripheral wall
Described as a "all extension" on p. 5, l. 20, "peripheral" also suggests side wall because claim has already referred to top wall.

Therefore, I would understand this feature to refer to a side extension of the storage tank.

2.8: upstands from the storage tank to provide a holding tank.
Fits with construction of peripheral wall in 2.7
"Holding tank" is as defined in feature 1.4, ie retains water for long enough while particles settle out. "Upstands from" means holding tank is above storage tank.

2.9: a filter material is secured over and between the peripheral wall.
"Filter material" is as defined in 1.9.
"Secured" means material is held in place.
"Over and between" means material has to extend across the peripheral walls of the storage tank, ie covers the whole of the holding tank formed by the peripheral walls, and also along the very top of the walls in order to satisfy the requirement of "over".
More restricted than feature 1.10

Claim 3 - dependent, product claim

3.1: according to claim 1 or 2
Requires the features of claims 1 or 2, ie 3→1 or 3→2

3.2: comprising
Includes the following features but may include others.

3.3: a wall sloping from or to the pipe.
"Sloping" appears to take its normal meaning, ie not absolutely vertical / horizontal but at an angle. Degree of slope not specified.

"A wall" described on p. 3, l. 23-24 as being the "base or lowermost wall", but this is only a preferred embodiment, therefore I would understand this term to refer to any wall of the apparatus.

"From or to" suggests slop may be inclined ("from") or declined ("to") depending on location of pipe, ie presented as alternative embodiments.

"The pipe" has no antecedent basis in claim 1, but reasonable to assume it refers to the "upstanding pipe" – feature 1.6

Claim 4 - dependent, product claim

4.1: according to any preceding claim
Requires all the features of claims 1, 2 or 3
ie: 4→1, 4→2, 4→3→1 or 4→3→2.

4.2: mesh
Refers to a specific type of filter material. Described on p. 3, l. 26-27 as having a range of holes. No indication mesh needs to have regular holes/pores

4.3: typically fabricated from steel or other metal material
"typically" means this is only a preferred feature, ie claim is not limited to steel/metal mesh only.

4.4: hole size from 1 to 10 mm
"hole" refers to gaps or 'pores' in mesh which extend through material to "allow water to flow into the holding tank". (see p. 3, l. 28-29).

"from 1 to 10 mm" – range includes extreme ends of range, ie 1 mm and 10 mm. As with 4.3, claim not limited to this feature because is mentioned after the term "typically".

INFRINGEMENT

Wasteaway have 2 products: currently imported & sold "CleaniO I^1" and future "CleaniO & I^2 tank"

Claim 1 :

1.1: present – I^1 & I^2 both multi-part apparatus for cleaning water – see p.10, l.3-7.

1.2: present – see p.10, l.3-4 and p.2, l.12

1.3: present

1.4: present – I^1 & I^2 both have lower surface which holds water to allow matter to settle out before it flows into storage tank – see p.10, l.5-8

1.5 & 1.6: present – p. 9, l. 13-15 describes pipe (5) "extends through" surface (3) which is the holding tank of this apparatus.

Pipe described as "central" on p. 9, l. 14 and also shown in figures to be in centre of 'holding tank', therefore satisfies 'central' requirement of feature 1.5

1.7 & 1.8: present – p. 10, l. 5-8 describes water being held before overflowing into storage tank (butt) "via the pipe" therefore edge of pipe (5) is providing the weir in Wasteaway's apparatus.

1.9: present – p. 10, l. 3-4 describes mesh of surface (4) filters the water flowing from a gutter, therefore feature (4) of Wasteaway's apparatus is a filter material.

1.10: present – p. 9, l. 17-18 describes surface (4) is attached to "upper portion of the circular wall". Therefore this fits within my construction of 'top' of the holding tank because it is in the upper part.

Therefore, I^1 and I^2 both appear to be directly infringing claim 1 because their CleaniO device includes all of the features and Wasteaway are importing and offering these products in the UK. Users who Wasteaway sells to will also be infringing. Only those who are private, non-commercial users will be exempted.

Claim 2 :

2.1: I^1 – not present ; I^2 – present

CleaniO system does not have storage tank – see client's letter, p. 2, l. 15 – therefore system itself does not provide storage.
However, p. 10, l. 19-20 describes I^2 will have a lower tank for storage too, therefore product provides both cleaning & storage.

2.2: present

2.3: I^1 – not present ; I^2 – present

Only future product provides storage tank, see p. 10, l. 19-20

2.4 & 2.5: present – even though I^1 does not have tank, pipe (5) extends through top of the butt (ie storage tank) so that water may flow in. Both figs A + B show pipe extends through top wall of Butt (B) in both configurations.

2.6: present – see feature 1.7 + 1.8, ie p. 10, l.5-8 explains pipe acts as 'weir'

2.7: present – circular wall (2) defines sides of CleaniO device which acts as holding tank

2.8: present – circular wall (2) is above storage tank. Constructed this feature to 'extend' from storage tank, but no attachment actually required by claim therefore peripheral wall of CleaniO device which is merely placed on top of butt would still appear to fall within this claim feature.

As explained, lower surface (3) + circular walls (2) used to define holding tank which holds water long enough to allow particles to settle out, p. 10, l. 5-8

2.9: not present – filter surface (4) described to be attached to inner wall of circular wall (2) (p. 9, l. 12), therefore does not satisfy requirement of extending "over" the peripheral walls because not at absolute top of the walls.

Also may be argued filter is not 'between walls' because connection is broken by central join (7).

Therefore, claim 2 does not appear to be directly infringed because the filter material does not extend over the peripheral walls.

Also, I^1 (ie CleaniO device) does not directly infringe when supplied alone because no storage tank is included with device.

However, could be argued device is indirectly infringing because Wasteaway is supplying & offering to supply in the UK a device which appears to be a means relating to an essential element for putting invention into effect in UK because device includes main inventive features of client's claims – ie upstanding pipe which acts as a weir and a filter material across a holding tank.

Wasteaway is unlikely to be able to rely on ‘staple commercial product’ defence because water cleaning device does not appear to be a well-known or ‘staple’ product on the market.

Claim 3

3.1: present for claim 1; not present for claim 2.

3.2: present.

3.3: present – p. 9, l. 13-14 describes a wall ie surface 3, sloping downwardly “to a central pipe”, therefore satisfies requirement of a wall angling ‘to’ the pipe.

Therefore, claim 3 is infringed by CleaniO device (I^1 and I^2).

Claim 4

4.1: present for claims 1 & 3; not present for claim 2.

4.2: present – p. 9, l. 26 describes filter surface (4) as a “mesh material”.

4.3: not present for I^1 – p. 9, l. 26 describes use of plastics.

present for I^2 – p. 10, l. 24 describes use of “steel mesh” in commercial version.

4.4: need to check for I^1 as no pore size specified.

Not present for I^2 – p. 10, l. 25 describes pore (ie hole) size ‘less than 1mm’ which is outside claimed range.

However, features 4.3 + 4.4 are not limiting on the claim because of term “typically” used, therefore claim 4 is infringed even when plastics mesh or small hole size used (ie by both I^1 and I^2).

NOVELTY

The embodiments described in Doc. C – first apparatus (ie Fig 1) = C^1 ; second apparatus (ie Fig 2) = C^2

Claim 1

1.1: C^1 – present, see p. 13, l. 6
C^2 – present, see p. 15, l. 23

1.2: present – see above is 1.1

1.3: present

1.4: C^1 + C^2 – present – baffles 19a$^{(1)}$ and b$^{(1)}$ used to "arrest direct flow of the flowing water" – see p. 13, l. 14-15, ie retains water in upper portion. Also p. 14, l. 4-5 describe baffles being used to remove fine particles from the water.

Therefore, upper portion is 'holding tank' according to my construction.

1.5 + 1.6: present C^1 + C^2 – feature 18 described as the 'tube portion' on p. 13, l. 13, ie "pipe". Also shown in figures to extend through its lower portion.

Shown in C^2 to not be quite central (see Fig. 2), but this was described in patent to be necessary → pipes not absolutely central still within scope.

1.7 + 1.8: present – p. 14 l. 4-5 describes baffles act as 'weirs' ie slow flow of water to allow particles to settle out.

Second baffle 19b is an extension of tube (see p. 13, l. 16-17), therefore 19b forms the uppermost edge of the complete pipe. This is clearly shown in Figs 1 + 2 where 19b is just an extension of 18. Therefore, satisfies requirement that 'uppermost edge' act as the weir.

1.9: C^1 present – feature (16) described as filter on p. 13, l. 20
C^2 present – C^2 also has a coarse filter as described on p. 15, l. 9.

1.10: C^1 not present – filter (16) is within pipe, not across top of holding tank.
C^2 present – p. 15, l. 11 described CF as being "in the top of the tank" therefore in upper part of holding tank which is within my construction.

Therefore, Claim 1 lacks novelty over C^2, but is novel over C^1 because the filter is not at the top of the holding tank.

Claim 2

2.1: present – outlet pipe 12 is only opened when water required – see p.14, l. 11-12; therefore 'lower portion' in storage tank in doc c embodiments. Therefore apparatus can be used to clean + store water.

2.2: present

2.3: present – see 2.1; tank is feature LP of Doc. C.

2.4 + 2.5: present – tube portion $18^{(1)}$ extends through top of LP – see Figs 1 + 2.

2.6: present – as explained, 19b is the upper part of the pipe which acts as a weir – see p. 14, l. 4-5

2.7 + 2.8: present – as explained, UP is the holding tank of doc C embodiments.

Feature of claim as requires a peripheral wall, therefore this feature is still present in C^2 even though only one side of storage tank extends to form a side wall of the UP (see right-hand side).
Both peripheral walls present in C^1.

2.9: C^1 not present – filter (16) is within pipe in C^1, not over or between peripheral walls.

C^2 not present – even though CF extends between peripheral walls of tank, it does not appear to extend over them because it is on a ledge in top of tank (see p. 15, l. 11).

Therefore, claim 2 is novel over C^1 and C^2 because the filter material does not extend over peripheral walls of holding tank.

Claim 3

3.1: present for Claim 1 (C^2), not present for Claim 2.

3.2: present

3.3: present – p. 13, l. 12-13 describes use of a “downwardly inclined conical wall” with the tube portion “at its centre”, therefore the walls slope ‘to’ the pipe.

Therefore, Claim 3 lacks novelty over both the embodiments of Doc. C.

Claim 4

4.1: present for claim 1 (C^2) + 3; not present for claim 2.

4.2: C^1 present – p. 13, l. 23 describes filter as “a mass of plastic fibres” – does this constitute a “mesh”? Construed term to mean filter material with holes, which appears to cover mass of fibres because there would be holes.

Should be noted a court may construe term more narrowly where a mesh is more organised than a “mass”, however nothing to suggest in client’s patent description that mesh needs to be regular, therefore I would construe term to broadly include “masses” of fibres for.

C^2, present – embodiment also includes filter (16) which is described in C^1. No debris on material of coarse filter, therefore the feature of a mesh not described for this filter.

4.3: C^1 not present – p. 13, l. 22-23 describes use of plastics material.

C^2 not present – CF described on p. 15, l. 11 to have metal frame, but this does not necessarily indicate mesh itself is steel/metal, could also just refer to surrounding outer frame of mesh which sits on ledge of C^2. Therefore, does not appear to be a disclosure of the use of steel/metal mesh.

4.4: not present – no description of hole size used with filter (16) or coarse filter.

Therefore, claim 4 lacks novelty over Doc C because required features of claim are present in embodiments.

However, steel/metal mesh (ie preferred features) and hole not described in prior art.

INVENTIVE STEP

Skilled person?

Engineer of water cleaning systems and water filters, especially for commercial / industrial processes.

Common general knowledge (CGK) ?

Document C is full prior art and is within some field as skilled person. Is likely to be aware of this document, but not CGK because relates to specific embodiments of a patent, therefore nothing to suggest part of CGK.

Doc C also mentions use of settling tanks (p. 12, l. 10), chemical flocculants (p. 12, l. 12), water cleaning processes (p. 12, l. 14) and coarse filters (p. 15, l. 10) are known in the field, therefore these aspects appear to be part of CGK of skilled person.

Inventive concept of claim? Difference with prior art?
Difference obvious?

Claim 1

Inventive concept of claim 1 is using an upstanding pipe to act as a weir and a filter material across the top of the holding tank.

There appears to be no difference with this claim and embodiment C^2 of Doc C

If a court were to construe baffle 19b as not the "uppermost part of the pipe" this would provide a difference. However the use of 'settling tanks' is part of the skilled person's CGK therefore it would be obvious to introduce a weir above the storage tank to allow the debris to settle.

The use of a filter material also appears to be well known, especially a coarse filter as described on p. 15, l. 10 of Doc C

Would the skilled person know that the device of Doc C could be used on a smaller scale ie on water butts? It would appear so because the aim of the invention in Doc C is to miniaturise the features of an industrial process (see p. 12, l. 20-21), therefore the skilled person would know the invention could be used in a more commercial setting.

Therefore, claim 1 appears to be obvious over Document C because all of the features are described in embodiment C^2.

Claim 2

The inventive concept of claim 2 is to combine a water cleaning + storage apparatus which provides a pipe which acts as a weir and a filter material extending over and between peripheral walls. The difference with prior art of C (both C^1 + C^2) is that the filter material does not extend over the peripheral walls.

Embodiment C^2 appears to be the closest prior art because the CF is provided between the peripheral walls. Would it be obvious to raise the filter? There do not appear to be any advantages to raising the filter other than easier removal of the debris, which the skilled person would know to do because this is a simple workshop variation.

Therefore, this feature appears to be obvious.

Furthermore, even if court were to disagree with my construction that the lower portion is a "storage tank", as explained for claim 1, it would be obvious to attach a storage tank because if the skilled person wanted to miniaturise the apparatus (an aim described on p. 12. l. 20-21) he would know to simply combine the two tanks in order to save space.

Therefore, claim 2 is obvious over the prior art.

Claim 3

The inventive concept of claim 3 is to use walls which slope downwards. This feature is clearly described in both embodiments of the Doc C.

Therefore, this claim is obvious over the prior art.

Claim 4

The inventive concept of claim 4 is to use mesh as the filter, in particular metal mesh with a hole size of 1-10 mm. The use of mesh appears to be described in Doc C which uses a mass of fibres.

Even if a court construed differently, the use of mesh would appear to be a simple workshop variation and no surprising or advantageous features are described with this feature.

Therefore, the required features of claim 4 are obvious.

If the uses of steel/mesh or particular hole size were made to be a requirement of this claim then this feature also appears to be obvious without supporting evidence because it seems to be a simple workshop variation with no added advantages.

However, check with client that there are no advantages associated with these features.

SUFFICIENCY

As explained for claim 2, the requirement of the pipe being ‘upstanding’ appears to be an essential requirement in order for the pipe to function as a weir, but this feature is missing from the claim. Otherwise, there appear to be no problems with sufficiency in the description or claims.

AMENDMENT

The current claims appear to be invalid, therefore it would be advisable to amend claims before approaching Wasteaway in order to strengthen position (and especially if risk of groundless threat proceedings).

Post-grant amendments are at the discretion of the UKIPO and must not extend protection of the granted patent scope (ie no broadening amendments).

If client has advantages + evidence of use of steel mesh with particular hole size, then could amend claim 4 so that these features are required (ie delete term “typically”).

Another feature could be to introduce feature that weir is “slidably moveable” (p. 5, l. 26) because arguably this feature is within claim scope because claims 1 and 2 do not require pipe to be fixed*.

However, amendments (post-grant) are opposable therefore, Wasteaway may oppose amendment not that they are aware of patent.

* Advantage with this amendment is that it appears to be novel & inventive because it is not described in document C, but Wasteaway is still infringing claims. However, may not cover one of client’s embodiments with a “fixed tube” (Fig 1) to check embodiment could not be provided with sliding tube.

ADVICE

Summary

Claim 1: Infringed, but not novel or inventive

Claim 2: Contributory infringed, novel but not inventive

Claim 3: Infringed, but not novel or inventive

Claim 4: Infringed, but not novel or inventive

↓

If all features made essential to claim:
Not infringed, novel, but only inventive with supporting evidence.

Client's patent is enforceable against Wasteaway who are importing + offering CleaniO device and will be importing / selling device with storage tank.

Assuming client successfully amends claims to overcome validity issues and Wasteaway still infringing, it should be noted infringement proceedings are extremely costly and should only be brought if client aware of costs.

- Patents County Court offers forum with limited costs, but damages also limited.

- Client likely to only receive limited damages anyway because patent appears to have been only partially valid when granted.

Alternative is to negotiate with Wasteaway. They mention "patented steel mesh" on p. 10, l. 24 therefore if client interested then could suggest a cross-licence.

No risk if compulsory licence because client's patent is less than 3 years old (only granted in 2012).

Wasteaway are importers, therefore client could negotiate on licence to sell CleaniO product on behalf of Wasteaway / Wasteaway import client's product to countries interested abroad.

Wasteaway (W) believe client threatened them. Need to amend patent quickly in case W start groundless threat proceedings because threats currently unjustified due to invalid claims to W could get damages. Also need to check circumstances with client to see if 'threat' actually occurred – evidence ideal but unlikely if only 'conversation' occurred. Although this also means W difficult to prove threat occurred.

If infringement proceedings wanted by client, could also apply for interim injunction especially to prevent W future sales of CleaniO + storage tank which are not yet on market. Client likely to get injunction if CleaniO not been on market for long (trade

shows only last week) because balance of convenience would favour client. If no injunction granted, court likely to order accelerated trial instead.

Also check how long Wasteaway have been developing CleaniO. Patent only filed in 2010, therefore do W have any prior user rights? Rights are limited therefore W is unlikely to be able to rely on them to launch mass production of products.