

## **2013 PAPER P6**

### **SAMPLE ANSWER 1**

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

#### 1.1 Apparatus for cleaning water.

- p3, lines 7-8 discusses “water cleaning apparatus” and particularly apparatus for cleaning domestic and other waste water.

- “particularly” means it is not limited to waste water; further supported by the word “other”.

- so can be used to clean any type of water.

- supported by claim wording, which just relates to “water”.

- “for” means “suitable for” as this is its normal usage and the skilled person would understand this.

- p3, C15-16 does discuss waste water, but relates to harvesting it rather than cleaning it.

- If the claim was intended to be limited to waste water, it would say so.

- but suitable for water is probably also suitable for waste water, and the other way round, as the “for” is not overly limiting to the scope of the claim.

- p6, L1-3 and p5, L32-35 show cleaning is by removing large particles/detritus.

∴ The apparatus must be suitable for cleaning water by removing large particles/detritus.

## 1.2 The apparatus comprising.

- comprising is an open term, meaning including but not limited to.
  - this is its usual meaning in patent terms, as would be understood by the skilled person .
  - claim 3 defines a further feature, so can't be limited to those in Claim 1.

1.3 a holding tank.

- reference numeral 10.
- p4, L22-23 – the holding tank must be capable of holding a sizeable volume of water.
  - amounts given later that paragraph are exemplary and expressed in conditional terms, so are not limiting.

∴ must be a region in which a volume of water can be held.

#### 1.4 with a central aperture.

- aperture 13 of Figure 1.
  - is shown centrally in the entire apparatus in Figure 1, and is referred to in the description as a central aperture.
- aperture helps create/define the weir (see point 1.5 below) and p6, L27-30 discusses that the weir is not necessarily centrally located and that variations can be made according to installation and use requirements.
  - However, aperture of Claim 1 is explicitly defined as being central, which would not be ignored by the skilled person.
- As shown in Figures, central is relative to the plan view, the aperture is at the base of the tank (required to create a weir), but centrally i.e. equidistant from the walls of the holding tank, as this is all that is defined in the claims, so can't be relative to any other part.

∴ aperture has to be centrally located within the tank relative to the side walls of the tank.

- 1.5 through which extends an upstanding pipe, the uppermost edge of which providing a weir.
- pipe extends through the aperture.
  - pipe is fixed tube 14 of Figure 1.
    - p4, L19 describes this as being “vertically disposed”.
      - relative to the configuration of the apparatus when in use (see Fig. 1).
  - pipe and tube are similar in meaning.
    - tube is in a specific embodiment, so if anything is narrower than pipe, as pipe must include tube.
    - both are terms of art.
    - must have walls and a passage through which water can flow.
    - p5, L8 describes cylindrical tube.
      - this is a specific embodiment, so claim covers this but is not limited to it (pipe can be any cross-section).
  - pipe creates a weir at its uppermost edge.
    - p5, L6-8 describes water running over the upper edge of the tube once the level of water rises to a certain level.
      - this is how a weir works.
    - pipe must have this function.
  - water can then flow by a gravity over the end of the pipe into a storage vessel, through the pipe (must have a passage for water).
    - vessel not part of the claim.
  - p4, L19-20 → tube extends both up from and below aperture.
    - also shown in Figures.
  - uppermost edge is relative to the arrangement when in use (vertically highest – see Fig 1).

∴ There must be a pipe extending both up from and below the aperture, that can allow water to run over its upper edge once the level in the holding tank is sufficient.

NB - to be a weir, the pipe probably has to extend through the base of the tank, as shown in Fig 1.

1.6 the holding tank having a filter material provided across its top.

- is mesh 23 in Fig 1.
- doesn't have to extend entirely across the tank.
  - in the embodiment in Fig 1, is held by brackets 20, which extend part of the way along the top of the tank.
  - so mesh 23 isn't across the entirety of the tank.
  - but p5, L3-4 shows it must be sufficient to stop large detritus.
- not limited to mesh but must include it, as it is a specific embodiment.
- Claim 4 defines a mesh, so must be broader than this but still include it.

∴ A material suitable to stop large detritus must extend most of the way across the top of the tank so that it can stop detritus.

(N.B – different to Claim 1, which just requires cleaning).

2.2 the apparatus comprising.

- see discussion in point 1.2, demonstrating this is an open term meaning including but not limited to.

2.3 a water storage tank.

- ref. numeral 101 in Figure 2.

- p6, L8-11 discuss placement and drainage of tank, but this is a specific embodiment so not limited to this.

- “typically” further demonstrates that this is not limiting.

- p6, L7-8 show that storage tank is the area to which water flows after passing over the weir.

- “storage” implies a volume is kept in this area, but there is no statement in the specification to support this.

∴ There must be an area to which water flows after passing over the weir.

## 2.4 having a top wall through which a pipe extends.

- top wall is reference numeral 103 in Fig 2.
  - “top” is relative to positioning when in use – so there must be a wall above the storage tank.
  - extends all the way across on tank 101 in Fig 2, but this is a specific embodiment, so not limiting.
  - “sloping” top wall 3 is a specific embodiment, so not limiting.
    - also is discussed in Claim 3, so top wall doesn’t have to be sloping as must cover Claim 3 but be broader.
- integral in Fig 2, but this is a specific embodiment so is not limiting – must extend at least partially across the top of tank to provide a water settling volume (p5, (18-21)).
  - it is an easy modification to not have top wall integral.
- pipe is weir 106, p5, L26-28 discuss it being moveable, but this is a specific embodiment so not limiting.
  - must act as a weir (see point 2.5).
- in Claim 1, “pipe extending” means extending up from and below the aperture.
  - same language in Claim 2, so likely means the same thing relative to the wall.
  - also shown in Fig 2.
- “pipe” is as defined in point 1.5 – same word used.

∴ must be a wall extending at least partially over the storage tank to provide a water settling volume, with a pipe extending up from and below the wall.

2.5 one end of the pipe providing a weir.

- p4, L4-5 specify “the other end” provides a weir, but doesn’t define a first end so lacks clarity.
- p6, L7 defines that water will overflow the weir, links in with p5, L6-10 (see point 1,5).
  - both define a weir, so term has the same meaning in each claim.
  - the “one end” of the pipe must necessarily be the uppermost end, as defined in Claim 1 for a weir to function.

∴ The pipe must allow water to run over its upper edge once the level around it is sufficient (same as point 1.5, but have not defined the holding tank yet).

2.6 a peripheral wall upstands from the storage tank to provide a holding tank.

- p5, (20-21), the extension extends beyond the top wall to provide a water settling volume 105.

- water settling volume 105 is the holding tank, which is an equivalent construction to the same term in Claim 1.

- the extension being an extension of the side walls is a specific embodiment.

- could be construed that this is require.

- but embodiments are not limiting to the claims.

- must be able to create volume 105 (can imagine various ways to do this).

- must be sufficiently upstanding to create volume 105 (upstanding is relative to arrangement in use) above the storage tank.

- p6, C1-3; volume 105 holds the water for a period of time.

- peripheral appears to mean in line with outer wall of the storage tank. This is shown in the figures and peripheral generally means outermost.

- upstanding from the tank implies must be in line with it, i.e. directly from.

∴ must be a wall section extending above the top wall in line with the walls of the storage tank to create a water settling volume sufficient to hold a volume of water for a time in combination with the top wall above the storage tank.

2.7 and wherein a filter material is secured over and between the peripheral wall.

- mesh 120 in Fig 2.

- p5, L32-35 “where significant solid particles will be removed”.

  - similar to definition given to “a filter material” in Claim 1 – same terms are used.

- “secured over and between” is shown in Fig 2.

  - mesh must extend over the top of the walls.

  - not the same as in Fig 1/Claim 1.

  - “over” is relative to arrangement when in use.

- “significant” in “significant solid particles” would be taken to mean large → see “large detritus” on p5, L2.

- Claim 4 defines mesh so must be broader than this but still include it.

∴ must be a material able to stop solid particles extending between and over the top of the outer walls extending above the top wall and in line with the walls of the storage tank, defining the water settling volume.

3.1 Apparatus according to Claim 1 or 2.

- must have all the features of either Claim 1 or Claim 2.
- “Apparatus” is as discussed in points 1.1 and 1.2.

3.2 comprising.

- is an open term, meaning including but not limited to.
- see point 1.2.

3.3 a wall sloping from or to the pipe.

- is base 11 sloping to aperture 14 in Figure 1 (see p4, L18).
- is top wall 103 sloping from weir 106 in Fig 2.
- ∴ wall can be part of cleaning or storage apparatus, i.e. can be the base of the holding tank (as in Fig 1 and/or the top of the storage tank (is both in Fig 2)).
- In Figures, sloping is shown with a constant gradient, but these are specific embodiments and there is nothing to suggest that sloping be limiting to this.
- slope helps to define the holding tank volume.
- Fig 1 shown sloping to pipe, Fig 2 shows sloping from pipe, both are explicitly covered.
- In both figures, the wall is sloping when it contacts the pipe, so this is what would be understood.
  - “from” and “to” rather than “towards” support this.
- ∴ Must be some form of sloping wall, to or from the pipe at the point it contacts the pipe.

4.1 Apparatus according to any preceding claim.

- see points 1.1 + 1.2 for discussion of “apparatus”.

- must have all the features of a preceding claim, so either Claim 1 or 2, or Claims 3 + 1 or 3 + 2.

4.2 wherein the filter material is a mesh.

- mesh 23 and 120 in Figs 1 + 2.

- mesh must be suitable for stopping large detritus / particles, as defined above.

- mesh is a term of art.

- see holes in the Figures.

- must be a surface with holes.

∴ the filter material comprises a surface with holes that can stop large detritus/particles.

4.3 typically fabricated from steel or other metal material.

- mirrors language on p3, L2, 6-27.
- “typically” means usually, but not always.
  - so can be made from other materials, so not limiting.
- p3, L31-32, material must be rigid and weather + corrosion resistant.
- metal must include steel.

∴ mesh may be made of metal or particularly steel but doesn't have to be.

4.4 having a mesh hole size of from 1 to 10 mm.

- supports mesh being a surface with holes in point 4.3.
- no definition of the direction measurement is, is this depth, diameter, length?
  - assume diameter, as this is the relevant distance for filtering function, but check this with the skilled person.
- Given rounding to significant figures, this probably covers holes with a size of 0.5 to 10.5 mm.

∴ holes have a diameter between 0.5 and 10.5 mm.

## Infringement

Document B shows the alleged infringement. Most of the document relates to embodiment B1, which is shown in the figures, but the last paragraph discusses the embodiment B2.

## Claim 1

1.1 present in B1, as the water is filtered (see p10, L3-5) which amounts to removing large particles/detritus.

- also see p9, L26 where the upper flexible surface is a mesh, which could clean water.

present in B2, p10, L20 which discusses cleaned water, so it must clean water.

- works in the same way as B1.

1.2 present in B1 and B2 implicitly, as both include features (depending on later sections).

1.3 present in B1, see P10, L5-6 which discusses water being held on lower flexible surface 3.

present in B2, see p10, L18-19, which discloses the same.

1.4 present in B1 as the pipe 5 is disclosed as being central relative to the walls of the tank (and is shown as such in the figures) and necessarily defines an aperture as water flows through it (see p9, L14-15 and p10, L5-7)

assume it is present in B2, as B2 is intended to work in the same way, but this should be checked.

- 1.5 present in B1 as central pipe 5 extends above and below the aperture (see Fig A) and is disclosed as allowing water to flow over it once a sufficient volume has collected in the area around it (p10, L5-8).

- would necessarily run over its upper edge.

assume its present in B2, if B2 works in the same way but this should be checked.

- 1.6 present in B1 as upper surface 4 of b1 filters the water (so removes large detritus) – see p10, L3-4. Upper surface 4 is attached to the inner walls (see Fig A + p9, L11-12). The rod 6 does disrupt it, but it can still filter, which is as construed.

present in B2 as upper surface works in the same way as B1 and uses a steel mesh (P10, 24-25).

∴ Claim 1 is infringed by B1 and B2.

2.1 may be present in b1, as the water is filtered (see p10, L3-5) which amounts to removing large particles/detritus. P9, L4-6 show aim is to help water harvesting and so storage.

- p9, L9-10 is for use with water butt B so not infringing when not attached to water butt as this is where water is stored.

present in B2, as tank for storage of cleaned water is integral (see p10, L18-20).

- works in the same way as B1.

2.2 present in B1 and B2 implicitly, depending on later analysis.

2.3 only present in b1 when attached to water butt, as this is where water flows after passing over the weir (see P10, L5-7).

Present in B2 as I assume it works in the same way as B1 (including a weir etc) and tanke for storage is integral (p10, L18-20).

2.4 only present when B1 is attached to a water butt in which as lower flexible surface is a top wall of the butt as it extends over it to provide a water settling volume and has pipe 5 extending to water butt, is no storage tank to home a top wall extending across it.

present in B2 as storage tank is integral and I assume it works in the same way as B1.

2.5 present in B1 as the water held on lower surface 3 builds up and overflows into pipe 5 when level is sufficiently high (see p10, L5-7).

present in B2 as I assume it works in the same way as B1.

2.6 only present when B1 is attached to a water butt, otherwise there is no top wall defined for wall section to extend above. When is on butt B, circular wall 2 extends above lower surface 3 to create a water settling volume (see Fig A and p10, L5-7).

2.7 Not present in B1 as upper surface 4 (which comprises a plastics mesh for filtering – see p10, L3-4) does not extend over the top of the walls defining the water settling volume. Instead, it is attached to the inner surface of the wall 2 (p9, L11-12).

not present in B2 as I assume it has the same structure as B1, though this should be checked.

∴ Claim 2 is not infringed by B1 or B2.

### Claim 3

- 3.1 present in B1 and B2 when dependent on Claim 1 but not Claim 2 (see previous analysis).
- 3.2 present in B1 and B2 implicitly, as both include features (depending on later analysis).
- 3.3 present in B1 as lower surface 3 slopes towards pipe 5. The wall will always slope at the point it contacts the pipe as the surface is flexible and longer than the diameter of the butt, so even if pipe is level with the connection point of the surface to the wall 2, due to the longer length the wall will slope at the point it meets the pipe.

I assume B2 will also have this feature if it is similar in structure to B1.

∴ Claim 3 infringed by B1 and B2 when dependent on Claim 1, but not claim 2.

#### Claim 4

- 4.1 present in B1 and B2 when dependent on Claim 1, or Claim 3 and 1, but not when dependent on Claim 2 or Claims 3 + 2.
- 4.2 present in b1 as upper surface 4 comprises a plastics mesh material (p9, L26) which filters the water (p10, L4), so stops large detritus/particles.  
- is a "mesh" so will be a surface with holes.

present in B2 as upper surface 4 comprises a steel mesh (p10, L24), which will filter the water as in B1. P10, L25 defines the hole size, so is a surface with holes that can stop detritus/particles.

- 4.3 present in B1 as this feature is not limiting, so the plastics mesh material (p9, L26) is covered by the claim. P3, L31-32 of A define the mesh as being rigid, which upper surface 4 isn't. However, this limitation is not in the claims, so the plastics mesh material of B1 is covered.

present in B2 as upper surface 4 comprises a steel mesh, which is specifically claimed.

- 4.4 Don't know diameter of holes in mesh of B1. I assume they will be between 0.5 and 10.5 mm, as below that they may impede water flow and above that, they may let large particules/detritus through the actual hole size should be checked.

B2 uses "pore size of less than 1mm". Assume this is the diameter but this should be checked. Further, actual pore size should be checked, as if it is 0.9mm it will likely fall in our range of 0.5-10.5mm. if it is 0.1mm, it will not. We could check the patent to answer this question.

∴ Claim 4 may be infringed when dependent on Claim 1 or Claim 1 + 3, depending on the pore size used in the mesh.

## Novelty

As we don't know when B was disclosed, it may be relevant for the novelty of the current claims if it was disclosed before our priority date.

The first disclosure of the Clearing system should be identified and dated. If it is after our priority date, it is not relevant. If it is before, it may be and the content should be checked. We need to find out what was disclosed and whether it was enabling.

If B as attached was disclosed, using the analysis in the infringement section, the novelty of the claims is as follows:

- Claim 1 is not novel over B1 or B2.
- Claim 2 is novel over B1 and B2 (due to feature 2.7 and relevance of B1 in combination with the water butt stands).
- Claim 3 is not novel over B1 or B2 when dependent on Claim 1, but not Claim 2.
- Claim 4 may not be novel when dependent on Claim 1 or Claim 1 + 3, depending on the pore size used in the mesh.

## Other disclosures

Various references are made at the start of A to wasting and not harvesting water. However, no solution is indicated, so this is not relevant to the novelty of the claims.

C also makes reference to settling tanks on p12, L9-12 and processing plants on P12, L14-18. However, neither of these disclosures discuss a specific structure or are enabling, so that the skilled person could make use of the systems disclosed. These disclosures are therefore also not relevant to the novelty of the claims.

## C

Document C is full prior art as it was published before the filing date of the present application (was granted before filing, so must have been published).

C also discloses two embodiments, C1 as shown in Figure 1 and C2 as shown in Figures 2 and 2A. Both are relevant to the novelty of the claims.

## Claim 1

- 1.1 present in C1 as p13, L7 discloses that it is an apparatus for cleaning water. Filter 16 stops particles passing through (p14, L16-18), which would include large particles/detritus.

present in C2 as it acts in a similar way to C1 and comprises filter 16'. Further, coarse filter CF is used to remove large particles (p15, L8-10).

- 1.2 present in both C1 and C2 (depending on later analysis).
- 1.3 present in C1 as baffles 19a + b provides regions in which water can be held (p13, L14-15 discloses that water is arrested by the baffles and p14, L5-7 disclose running over in sequence, so must hold some volume). Present in C2 as it also comprises baffles 19a' and b' which work as discussed above (p15, L1-3). Baffles are circular in plan (p15, L5-6) or linear (p15, L5), so will create a region for holding water.
- 1.4 present in C1 as tube portion 18 is central (see Fig 1 in which it is equidistant from the walls of the holding tank and must form an aperture as water flows through).

Not present in C2 as tube portion 18' is not centrally located within the holding tank relative to the side walls of the tank (see Fig 2).

- 1.5 present in C1 as pipe 18 extends above and below the aperture (see Fig 1) and allows water to run over its upper edge once the level is sufficiently high. This is demonstrated by p14, L4-8 which disclose water running over the tops of baffle 19b, which is the top of the pipe 18 (see Fig 1). This is not present when baffle 19b is separate from pipe 18 (p13, L16-18).

present in C2 for the same reasons.

- 1.6 not present in C1, as there is no filter material across the top of the volume required to hold water. The only filter material is in the pipe 18, which is at a level below the baffles 19a + b (see Fig 1). Holding tank cannot be considered to be LP in Fig1, as there is no central aperture through which a pipe is formed to create a weir.

It is true that LP of tank 10 can hold water and its top may be considered an aperture. However, pipe 18 doesn't extend above and below this aperture, as required by my construction. Weir 20 acts as a weir, as construed (see p14, L10), but cannot be said to be a pipe extending above or below the aperture of a tank. In this case, filter 16 may extend across part of the tank to stop detritus, but the other requirements of the claim cannot be met. There is therefore no interpretation of C1 that anticipates Claim 1.

present in C2 as coarse filter CF extends across the entirety of the holding tank to stop detritus (p15, L8-13) though the presence of a frame doesn't matter (see construction). Claim 1 is therefore novel over C1 and C2.

## Claim 2

- 2.1 present in C1 and C2 as it cleans the water (see point 1.1 in this section) and the cleaned water is stored in tank 10 (p14, L7-8).
- 2.2 may be present in C1 and C2 implicitly, depending on later analysis.
- 2.3 present in C1 and C2 as LP and LP' of tank 10 respectively (see p14, L5-8), as water enters this area after passing over baffle 19b (see Figs 1 and 2).
- 2.4 present in C1 as funnel portion 15 extends at least partially over the storage tank to provide a water settling volume (Fig 1 and p13, L14-15). As construed, this does not have to be integral, though it is part of tank 10 in Fig 1, so may be considered as such and as part of the storage tank. Pipe 18 extends up from and below the wall (Fig 1).
- 2.4 present in C2 as the funnel portion extends over the top of the LP' of tank 10 and provides a water settling volume, as in C1 (as discussed above – and see Fig 2). Pipe 18 extends above and below the wall (Fig 2).
- 2.5 present in C1 and C2 as baffles 19b and 19b' act as weirs as water runs over their upper edges when it reaches a sufficient level (p14, L5-7).
  - see also point 1.5 in this section.
- 2.6 present in C1 as there is a wall section extending above the top wall to create a water settling volume with the funnel portion 15 above LP of tank 10 (see Fig 1) in line with the storage tank 10 walls.

present in C2 for the same reasons (see Fig 2 – RHS wall is continuous, LHS wall is in line).
- 2.7 not present in C1 as the filter material does not extend over the top of the walls defining the water settling volume. Instead, filter 16 is below the volume (Fig 1).

Not present as CF does not appear to extend over the outer walls (in line with the walls of the storage tank) to stop large particles.

∴ Claim 2 is novel over C1 and C2.

NB tank 103 in C2 cannot be the storage tank as there is no top wall over this part that includes a pipe, as claimed. This interpretation does not anticipate Claim 1.

### Claim 3

- 3.1 Not present in C1 and C2 as the features of Claim 1 and 2 are not present.
- 3.2 May be present in C1 and C2 depending on later analysis.
- 3.3 present in C1 as funnel 15 slopes at the point it contacts pipe 18.  
present in C2 for the same reasons.

∴ Claim 3 is novel by dependency only.

### Claim 4

- 4.1 Not present for C1 or C2, as neither have the features of claim 1 or 2.
- 4.2 not present in C1, as there is not filter material as claimed in Claim 1 and 2 (above water storage region), so can't be a mesh.

Present in C2 as CF comprises a surface with holes that can stop large detritus/particles (can see the holes in Fig 2 and disclosed as removing large particules on p15, L12).

- 4.3 not present in C1 (see 4.2).  
present in C2 as this feature is not limiting to the claims.
- 4.4 not present in C1 (see 4.2).

there is no disclosure of the hole size of CF used in Fig 2, so this feature is not present in C.

∴ Claim 4 is novel over C1 and C2.

## Inventive Step

The skilled person is likely to be a manufacturer of water cleaning apparatus (see p3, L7-8, which shows water cleaning apparatus is the field of the invention).

Both A and C disclose at their retort features that are “known”. The information in A would be common general knowledge (relates to a different technical field) (waste disposal – see p12, L6-7). However, the paragraphs from line 9 to line 18 relate to cleaning generally, so may be considered as common general knowledge.

### Claim 1

The main inventive concept is the holding tank with a weir system, covered by a filter material.

C may be considered by the skilled person as, despite relating to a different technical field, it clearly relates to cleaning water from the waste system (p12, L20-22).

C1 differs from Claim 1 in that it doesn't disclose a filter material extending over the holding tank. However, this is disclosed in C2 and the benefits are described on p15, L12-13. As the embodiments are disclosed in the same documents, the skilled person would think to combine them and there is no reason why the coarse filter of C2 could not be used in C1.

Claim 1 is  $\therefore$  not inventive over C1 in combination with C2.

C2 differs from Claim 1 in that the tube portion 18' is not centrally located between walls of the holding tank. However, moving the position of the tube is a simple workshop modification and the position of the tube in C1 (i.e. centrally, as claimed), may lead the skilled person to make this modification.

It could be argued that baffles 19a are circular in C1, but linear in C2, so there is no reason for the tube to be central. This may be the case, but there is no reason why the tube can't be central with linear baffles, so this would not teach away from the present invention.

Claim 1 is  $\therefore$  not inventive over C2 in combination with C1.

If B predates A, Claim 1 is not novel over B1 or B2, so would also not be inventive. Given the different fields, it is unlikely B and C would be combined (B relates to cleaning water, as A, so would be considered).

## Claim 2

The main inventive concept of Claim 2 is the combination of a storage tank with a holding tank above it, including a weir and a filter material extending over the outer walls. The advantage of having the mesh extend over the walls is that it can be swept by a person walking thereupon or arms, so material on the mesh can simply fall off the side (p6, L19-20).

This feature is not disclosed in C. C1 does not disclose the use of a filter material at all (though could be combined with C2 to include such a material, as discussed above).

However, the filter of C2 is housed within the tank 10 (see Fig 2). The skilled person would not easily be able to fit the filter over the top of the walls, as they join directly to the roof of the tank. Further, the region between the tops of the walls already comprises sludge removal tube 30 so this would have to be removed to move the filter to the position currently claimed.

The filter of C2 needs the removal tube to remove the sludge and cannot simply be swept to push the sludge off the edge of the filter, as in the invention of Claim 2. This feature is advantageous to the arrangement of C2.

However, the walls extend above the entry point of the waste water so to move the filter to the position of 30 would mean the water wasn't filtered. A complete redesign of many aspects of C2 would be required to do this.

Claim 2 is  $\therefore$  inventive over C1 and C2, alone and in combination.

If B is prior art, it also does not disclose a material attached over the outer walls (see Fig A). Due to the flexibility of the filter, it could not be swept in the same way as that claimed. However, it is disclosed on being brushed or washed off (p10, C14-15).

It may therefore be considered by the skilled person to arrange B1 so that upper surface 4 extends over the side walls, so that detritus isn't trapped between the walls and the surface.

Claim 2 may  $\therefore$  not be inventive over B.

### Claim 3

The main concept is the sloping wall. A wall sloping away is disclosed in both C1 and C2, so would be obvious to the skilled person.

However, C1 and C2 only disclose sloping towards the pipe, not away from it. However, sloping away to create the weir effect may be a simple modification, especially in view of the disclosure of the importance of settling, p12, L9-11, as the slope would increase settling.

Claim 3 is  $\therefore$  obvious over C.

B also discloses a wall sloping towards and away (see Figs A and B), so Claim 3 would be obvious over this.

#### Claim 4

The main concept is the hole size of 1 to 10 mm.

The hole size in C of the coarse filter is not disclosed. However, such a filter is said to be well known in the art (p15, L10), so we should search for the pore sizes given the art.

Considering CF does the same function as the filter of the present invention, it is likely it will have a similar pore size, so it is unlikely that this range will be inventive.

### Sufficiency

There is no disclosure of a filter material in A other than a mesh. As a mesh is considered a surface with holes, it is hard to imagine any other filter material. The broader term implies materials other than mesh are covered, so may be insufficient.

### Amendment

If B is not prior art, Claim 2 may be valid. However, it is not infringed, so amending to this may not help deal with B.

Amend the statement of invention for Claim 2 to be in line with the claim.

P4, L1 describes the pipe being moveable.

- this is limiting and does not add matter, so could amend to this.
- B1 and B2 both use flexible surfaces and movement is important.
- C does not disclose movement of pipe and as pipe is enclosed, would not think to include this feature.

Amending to this should provide a valid and infringed claim.

Claims 1, 3 and 4 are infringed.

All claims are novel.

Claims 1 and 3 are obvious over C.

Claim 2 may be obvious over B (if prior art).

Claim 4 may be obvious over common general knowledge.

- For more detailed analysis, see above.
- Note that Claims 1 and 2 are similar in scope, but Claim 2 includes the storage tank.
- I have assumed B1 works in the same way as B2, please confirm this.
- If I am wrong in my construction of “over” in Claim 2, B1 and B2 may infringe this. B2 will directly infringe, while B1 may be a contributory infringement.
- Can bring infringement proceedings, but could be expensive and may not be successful given no claims may be valid or infringed.
- If successful, get damages or account of profit, declaration of validity and infringement injunction, delivery up or destruction and costs.
  - damages may be reduced due to invalidity.
- Look for an amendment in spec to provide a valid and infringed claim.
  - can amend before proceedings, which will maximise damages but delay the result of proceedings.
  - or can amend in proceedings, though then have Wasteaway opposing amendments.
  - discuss amendments next week.
- Need to find out when Wasteaway started.
  - if before our priority date (or made serious and effective preparation to start) may have prior user rights.
  - If B is prior art (published before our priority date which is unlikely but not impossible) it is relevant prior art. This needs to be checked and other earlier disclosures looked for.
- If Claim 2 is infringed, selling B1 is a contributory infringement as it does not include a storage tank but is a means relating to an essential element of the invention. Supply or offer for supply in the UK, where it is obvious B1 is suitable for using the invention in the UK (which it is) is infringement under S60(2). It is not a staple commercial product, as it only has one use.
  - B2 has an integral storage tank, so is a direct infringement.
- Making, using, disposing, offering, importing and keeping are all infringements when done with infringing items.
  - B1 for Claims 1, 3 and 4 and B2 for Claims 1, 3 and 4 (and maybe also 2, as above).
- Wasteaway are importing, disposing, offering and keeping.

- check who has control at the border. If it is the supplier, then they are importing.
- Could the supplier be joined as a joint tortfeasor?
- Customers have a private and non-commercial defence.
  - unless use the system commercially, which is discussed especially with regard to B2.
  - commercial use of B2 is an infringement as well.
- As Wasteaway are importers, any threat you may may not have made is not actionable in relation to importing or any other aact.
- Furnish them with a copy of the patent to stop innocent infringement.
- Have you been marking your product with the patent number? Need to do this to maximise damages.
- Have to do some research into hole sizes.
  - was it known (i.e. with the filter described as “known” in C) to use holes of the claimed range.
  - Does B1 use holes of the claimed size.
  - what size holes will B2 use?.
  - may be a point of novelty + inventive step while catching the infringement.
- Look at Wasteaways patent for mesh.
  - do we want to use it? If so, could cross-license.
- Offering a license deal could be the best way to go.
  - get some revenue, cheaper and less durable so are aiming at a different market?
  - but extending to commercial, more robust systems with B2.
  - offer a license for B1, which appears to be domestic, which is not your area.
- As B2 not yet launched, could get an interim injunction.
  - infringement is a serious issue to be tried.
  - not yet launched, so balance of convenience on our side.
  - would damages be sufficient compensation?
- Can't get one for B1, as seems to have been on the market for a while (p9, L7 of B).
- Need patent in force, so first renewal fee due fourth anniversary of filing (1/9/14).
  - ensure this is paid.
- Selling butts alone for use with B1 is unlikely to be a contributory infringement, as are a staple commercial product.
- B can be used with cleaning products, so offer to supply them with your cleaning products? If this relates to chemical cleaning, not just apparatus.

I would amend as outlined in the amendment section before approaching Wasteaway.

- then approach for license on B1.
- they may stop launch of B2, but this seems unlikely.
- then bring proceedings if necessary.
- Cannot remove “over” from Claim 2, as this would be broadening.
  - so Claim 2 unlikely to be infringed unless design is changed.
    - buy current design to check this.
    - could order B2 to prove offer, but a commercial system could be large and expensive.

Claims 1 and 3 as amended would be valid and infringed by B1 and B2. Claim 4 is also likely to be valid and infringed.

- Offer to supply Wasteaway with butts?
- File abroad to protect any further developments.
  - not possible to claim priority from A as too late.
  - what is B doing abroad?.
- Are already taking orders for B2, so are offering it which is an infringement.