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SAMPLE SCRIPT A

This script has been supplied by the JEB as an example of an answer which achieved a pass in the relevant paper. It is not to be taken as a "model answer", nor is there any indication of the mark awarded to the answer. The script is a transcript of the handwritten answer provided by the candidate, with no alterations, other than in the formatting, such as the emboldening of headings and italicism of case references, to improve readability.

CONSTRUCTION

Claim 1

"foam bodies"

open or closed-cell foam; I interpret bodies to exclude continuous sheets, etc; but no size limit yet.

"for cleaning ….. circuits"

for implies "suitable for", <u>not</u> specifically designed for; this tern thus excludes anything which would be impractical to use I the heat exchangers referred to, but includes the mildly inconvenient.

"the bodies … pieces" nb the pieces maybe the bodies OR may be components thereof

these bodies maybe irregular (eg as formed by chopping foam blocks -Doc A line 66) or spherical; in context I would gloss spherical as substantially spherical; given the presence of irregular in same claim, generally spherical bodies would also be caught.

"formed of"

contain, comprise - does not exclude other materials

"polymer"

we have exemplified PUe "natural rubber latex. I see no reason from the text <u>not</u> to regard polymer as "any synthetic or natural polymeric/plastics material" (polymer also includes copolymers since there is no exclusion).

"average largest diameter"

"largest diameter" is defined as longest axis through centre (Doc A lines 97-98); use this definition; average is an arithmetic mean in the absence of guidance otherwise.

"about 0.5 to about 1.5mm"

This is the range of the <u>average</u> not the greatest largest body diameter; "about" indicates that there is some flexibility on these numbers. This could be read strictly as values that round to 0.5 and 1.5 - ie range effectively stretches from 0.45 to 1.55mm.

It was inserted to distinguish from Doc B, which cited 2mm for cleaning sponge balls. This is not strict estoppel, but I would take an effective range of 0.4mm to 1.7mm as the

maximum we an purposively cover. (We sieve out below 0.5mm in example 1; a typical sieve is not that precise, but in the absence of expert info, I take 0.4mm as the lowest value).

Claim 2 dep on1

"the polymer comprises polyurethane"

"comprises" indicates that that the polymer can include other materials

polyurethane is clear; homo or copolymers of PU.

nb strictly this does not mean that the matrix polymer only is PU; the polymer pieces in claim could be in addition to the matrix/main body.

Claim 3 dep2

abrasive particles:

abrasive clearly indicates capable of abrading particulate dirt from a surface

particles: excludes a mat of fibres as in scouring pad; includes objects with some independence; includes fibrous objects separately attached

embedded

at least partially encased in (see below *); could mean wholly embedded, but does not say so, and we have it at surface and within, by nature of the mfg process (confirm with an expert).

Fibres could be end-attached in this reading.

* purposively on embedded - does this extend to adhered to the surface- this would the job; would have been clear at the time; nothing in spec discourages this equivalent; ergo, purposively, embedded covers adhered to the surface.

a matrix of the polymer

now "the polymer" of cl. 1 and cl. 2must be the matrix in which the abrasive is wholly/partially embedded

Claim 4 (dep on 3)

abrasive particles on about 100 mm in diameter

diameter in description is measured or at least selected by sieving.

no basis in text for about 100mm; closest is 80-120mm; sieves cant cut much finer than this; either gloss to 80-120mm by sieve, or amend specifically to this.

Nb "99-101mm" is wholly unreasonably in practical terms.

Claim 5 dep 3 or 4

Polymer to abrasive particle ratio

not defined in claim with ratio (weight? vol?) but text (line 78) uses parts by weight. Therefore gloss (or ament) to "ratio by weight"

1 to about 5 or 6

no help from spec on meaning of about, so I use 4.5 to 6.5 on a mathematical rounding argument

The size range of abrasive is not necessarily included in claim 5 -2 claims

Claim 6

A process for cleaning surfaces

(a) for = suitable for

(b) NOT even restricted to cleaning heat exchanges, could be cake tins…..

foam bodies as defined in any of cl. 1-5

effectively six claims (cl. 5 = 2 claims)

.

remove unwanted particles

NOT the same as abrasive particles above; contextually, particulate dirt

pivotal sieve

from context flips in and out of the flow

excludes the backflow cleaning of a fixed sieve in doc B.

should be amended as obvious extn.for pivotable which is how I read it, even if amendment not allowed

outlet connection

ie of the circuit in which the detergent flows.

cleaning

means - anything that cleans

cleaned

not cleaning as in cleaning the surface this - this is cleaning the bodies now

in each case, it means removing particulate dirt, so no problems.

INFRINGEMENT

Abrazosphere	sells SB1 chunks SB2 spheres	Doesn't sell retrofit device
Overseas manufacturer -	sells SB1 chunks SB2 spheres	sells retrofit device

Ex-customer - uses SB1,SB2

- uses process uses retrofit device.

Abrazosphere SB1 - Imports, disposes of, keeps, offers to dispose of, products SB1

SB2 - Imports, disposes of, keeps, offers to dispose of, product SB2

Also - each product is arguably an essential element for putting process into effect therefore supply or offering to supply (with knowledge)

- 2° contributory infringement by SB1/SB2

O/seas mfr. most acts are occurring outside the UK, so not infringement;
presume (check in reality) transfer of goods SB1,SB2 to Abruz is o/seas, so Abraz is importer
presume the supply/offer to supply of the retrofit device is taking place outside UK, - but check with client

Ex-customer - uses, keeps for (disposal or) otherwise SB1 product, SB2 product
- uses process
- are worn spheres a direct product of the process – no, process is to clean surfaces so direct product of the process is a clean surface: Not a profitable line

Do SB1, SB2, process infringe claims?

SB1

Claim 1.

Foam bodies - natural latex chunks qualify
for cleaning … - are used for, so are suitable for
bodies…pieces - irregular is the phrase used in both cases, so these are irregular
polymer - by my construction, natural rubber latex is within "polymer"
average largest diameter - we have a range measure here – 20% outside the 0.5 - 1.5mm range, above and below.
Mathematically almost certain that average of these will fall within 0.5 – 1.5mm, with so few outliers, esp with my purposive stretch to 0.4-1.7mm.
however, really need to get customer to do the proper sums to get number for the mean.

Ergo, assuming we get "correct" from calculations, SB1 product infringes claim 1.

Claim 2 SB1 has no detected PU ***therefore no infringement (homo or copolymer…)***

Claims 3 to 5 all depend on claim 2, ***so no infringement***.

Claim 6 is a process of claim; (a) where it uses foam bodies acc to cl 1, which if they as SB1, there may be contrib. infringe. (b) where its dependent on cl2-5, use of SB1 is outside its terms therefore no contrib.

SB2

Claim 1

Foam bodies are present, they are suitable for cleaning heat exchanges (since they are, without problems)
*SB2 is declared to be substantially spherical, so qualifies as "spherical pieces of"
* The main body is natural or synthetic sponge rubber - my polymer definition includes any natural polymer so this fits claim
*Abraz quote just a diameter, but since they are near enough spherical, SB2's diameter is a largest diameter in practical terms.

"The cleaning bodies come in a range of sizes with diameters from 1mm to 3mm" I read a range of sizes to mean there is a 1mm grade, a 5mm grade, and so on.

Client got a 1mm grade, where individual particles were in 0.9-1.5mm range. Mean will hence be around 1.2mm in a symmetrical distribution, well within my purposive 0.4 to 1.7mm maximum stretched range.

Ergo, <u>this</u> SB2 product infringes claim 1

Claim 2

This introduces "the polymer" the claim 1's "pieces" as comprising PU. The client does not say whether the abrasive was PU fibres as in figure 3 of Abraz's website

Clearly they were elongate, as they had lengths 100-200 Even if we called PU fibres "irregular pieces of polymer" qua claim 1, none of these fibres are in my size range.

Therefore even if SB2 has PU fibres, they are "not pieces of polymer" of the correct size range for claim 1, ***therefore the "polymer" in claim 2 would not cover PU.***

Claim 3 depends on claim 2

If SB2 does not fall within cl. 2, it does not fall within cl. 3. Were I wrong on claim2, the SB2 abrasive appears to be embedded in an adhesive of unknown type. However, we have a purposive reading of embedded in construction above that includes "adhered to surface".

Ergo, were I wrong about claim 2, cl. 3 would also be infringed.

Claim 4 Not infringed as deps on cl. 3, but… Abrasive particles are "about 100mm in diameter in our claim

- by sieve measurement
- I take this to mean a 80-120 mm "cut" from sieving.

SB2's abrasive ranges from 100-200mm <u>in length</u>

Sieves tend to size on minimum diameter (fibres slip through lengthways) - so length measurements not relevant to our claim terms.

From Abrazo's figures, a 200mm long fibre/etc would be 50mm in diameter, maximum, so falls below the range. No infringement anyway.

Claim 5 we have no information on ratios, so ignore this one,

Claim 6 - where the process uses SB2's falling in terms of claim1, then as for SB1, these maybe contrib. infringement. Where it uses those outside claim1, no.

<u>*Process*</u>

Claim 6: The process used by the ex-customer is described, as far as we know, as being identical to our claim.

Our claim requires use of specific foam bodies

So when process uses bodies falling in claim 1 - ie SB1s, SB2s it would be infringed.

If SB1's, SB2's do not fall within CLs 2-5, then the process using cl. 2-5 foam bodies would not be infringed.

Ergo, even using an identical retrofitted device operating as described, the infringement status of the foam bodies is critical.

NOVELTY

Claim 1 versus Doc B

Doc B describes cleaning bodies for the declared purpose (air conditioning units, line 7 fall within the meaning of cooling water circuits on a normal reading)

- one option is sponge rubber bodies (line 13) which are foam bodies on my construction
- These are formed as balls (line 5), hence substantially spherical in my reading.
- synthetic and natural rubber are disclosed, within my definition of polymer as any synthetic or natural plastics homo or copolymeric.
- The bodies are declared to have an average largest diameter of 2mm; our claim limits this max overall diameter to 0.4 to 1.7mm, even reading purposively.
-so this feature is not present.

Claim 1 is novel over Doc B

Ergo claims 2 – 5 are novel over Doc B

Claim 6 versus Doc B

Doc B has foam bodies, not, strictly speaking a liquid detergent (but this may be obvious, see below).
-the foam bodies clearly contact a surface and clean off dirt
-limitation to bodies as defined in cl. 5 means that since the Doc B discloses no such bodies, it does not disclose this method
-the pivotable sieve feature is also novel over Doc B which uses a backflush /couterflow of fluid to lift bodies out of the sieve on which they are collected.
-there is no sign of anything pivoting, just open/closed valves and our spec is emphasizing advantage over valves(see obviousness)

Ergo claim 6 is novel over Doc B.

Our admitted prior art (APA) in the spec qua product is sponge foam <u>blocks</u> with abrasive on the surface or within matrix of foam, (handled manually)

Panascrubs/panscourers are oversize for our purposes.

Therefore claim 1; query whether these are "suitable for" and on any case, they are ay oversize.

Therefore cl. 1 novel over this. (ditto dependents)

For process purposes, we admit as APA in spec (lines 45-52) a process very much like that in Doc B (less size or material specs on the cleaning bodies)

Cl 6 is novel over Doc B (now its amended….) so its also novel over APA.

Doc C has no process for cleaning heat exchangers, but cl. 6 is not so limited
However, it says nothing about sieves, pivoting or otherwise.

Similarly, it has no description of any spherical or irregular pieces of polymer in the correct size range. or has it? 16s…

Anyway, the description is of scouring block variants, which I would consider too large to be of use in the cleaning procedure mentioned in claim 1.

Therefore claim 1 (and dependents) and 6 novel over Doc C

Doc D refers only to latex chips as prior art. No novelty problems there…

INVENTIVE STEP

Using Windsurfer test, we need to identify inventive concept added in each claim, find if it's present in nearest prior art with or without combining with other prior art, work out if combinations are reasonable.

For the product claims and the process claims, I will take Doc B as the nearest prior art.
Doc C, and admitted prior art are evidence of known technologies in (vaguely) similar fields.

Claim 1

The novel/inventive concept over Doc B in claim 1 is that the average largest diameter is limited to about 0.5-1.5mm (read in the construction as 0.4 to 1.7mm at most)

The advantages from this are that:

(a) (Doc A, line 87-88) larger bodies impede flow of water and prevent smaller bodies hitting walls.
(b) Very small bodies (line 85) are hard to separate and do not clean well.

Doc B suggests that 2mm is fine (it does not specify whether this is wet or dry, so must leave measurement conditions moot).

<u>However</u>, if we combine disclosure of Doc C, this employs as a scouring/cleaning medium a plurality of "modules, globules…. of polymerized acrylic resin". These are mounted on tips of upstanding fibres, which is not exactly how we use them (floating free).

However again they are exemplified as being preferably 0.5-1mm in length (Doc C, line 45).

Many of the nodules 16 of fig 2, Doc C are generally or substantially spherical, so "length" in Doc C is near enough the same as "(average) largest diameter" in that both would be taken as the maximum linear dimension of the " piece" in question. Therefore fall in my 0.4-1.5 range easily.

An acrylic globule fits my definition of "piece" and "polymer".

Thus, if the qualification of being (suitable) for cleaning inside heat exchanges is left to one side, the "pieces" of fig. 2 Doc C do seem to fit the term "formed of…… 1.5mm".

The question is whether this is a reasonable combination of documents.

The fields in each case are cleaning/scouring.

However cleaning inside the heat exchanger is a different area to Doc C - scouring pads, abrasive paper or cloth (line 6)- cleaning paint work, renovating suede, (lines 47-51).

The action is the same – particulate entities in the 1mm size range brushing over surfaces to remove dirt.

To use Doc C, one would have to discard the foam backing pad (or shrink it so it fits in a heat exchanger). So what?

On balance, I believe that this combination of documents cannot be discounted, and so claim 1 is not inventive over Doc B +Doc C

Claim 2 introduces polyurethane. None of the prior art mentions polyurethane, except that Doc C has a PU foam backing sheet. This is not the polymer of the "pieces" however (ie items 16 on fig 2).

To drag in PU like this would not be a permissible combination, reading Doc C in context.

Therefore, claim 2 in inventive over a combination of Doc B and Doc C.

Claims 3 to 5 depend on claim 2, so are also inventive.

For claim 6, Doc B is again the nearest prior art. There is the question of how far the "foam bodies as claimed in claims 1-5" contribute to inventiveness.

From the above per cl.1 would not; bodies per cl. 2-5 would.

In any case, the pivotable sieve in place of a static sieve plus backflushing appears nowhere in the prior art.

Is it an obvious workshop variation? I would say that if it hasn't been tried yet (ask client for how long the admitted prior art arrangements have been used), it is not a routine change to make "in the workshop".

I therefore believe that claim 6 is inventive over all known prior art.

AMENDMENT

Cl. 1 will need to go, as its not inventive;

Cl. 6 will need to be amended so as to incorporate the full definition of foam bodies of cl. 1 since cl. 1 will no longer be there to refer to;

Amending cl.1 to incorporate cl. 2 will protect our favoured product, but will not catch Abraz on direct infringe.

Amendments from description of cl. 1 must narrow protection, being post-grant.

We could incorporate as well the term relatively uniform diameter at 60°C from lines 94-95, which may catch SB2 (tho' not SB1). Quare: sufficiently precise, though?

ADVICE

The status is

Claim 1: novel; not inventive; infringed by SB1 and SB2

Claim 2:novel;inventive;not infringed by SB1 or SB2

Claims 3, 4, 5:Novel;inventive;not infringed by SB1 OR SB2

Claim 6;Novel;inventive;infringed by process used by ex-customer. If SB1 and SB2 are essential elements, then → contrib. infringement.

Clarify. Claim 6 effectivly "depends" on interpretation each of claims 1 to 5. Even if claim is invalid, foam bodies falling/defined thereby do exist.

We have decided SB1, SB2 are as described by cl. 1 (even if it is not inventive)

Therefore cl. 6 dep on cl. 1 is using foam bodies as defined…

Yes, SB1, SB2 do appear to be essential elements…

Not staple products that I can see. (qua s60(3))

Clearly suitable and Abraz knows this

Therefore Abras supplies and offers essential elems to allow proc of cl. 6 to be worked → infringement by s60(2)

Also, the overseas mfr. supply of the retrofit device would also be contrib. infringe, except that it probably (check) does not take place in UK.

So:

Dear client,

- I believe that the SB1 and SB2 both directly infringe your patent, claim 1

- However, claim 1 is currently unsupportable over the newly found prior art

- will need to be amended, and probably in such a way that SB1 and SB2 will not directly infringe.

- Amendment should take place asap so we take any other action with clean hands

- However, the process claim, claim 6, is valid

- The process needs foam bodies, as defined by eg claim 1, to work.

- Abrasz is supplying such bodies, as SB1 or SB2.

- Abras knows what they are for

- Therefore, Abras, by offering or supplying them in UK, (wherever it sourced them from),is committing contributory infringement of claim 6 (referencing cl. 1)

- The retrofit device is also essential to the operation of claim 6.

- Its supply in the UK would infringe (contributory infringement) except that supply is by the oversea manufacturer direct, NOT via Abras, so supply may not be occurring in UK.

- Needs more checking

- The ex-customer is using the process as defined by claim 6, (referencing claim 1)

- This is primary infringement

To use GB1010101 against Abrazo. or the ex client, I needs to be amended so as to become valid in all claims. This is an administrative process @ Pat Off at this stage (tho' can be opposed)

Meanwhile, action can be taken in court (High Court or PCC) against both parties.

Negotiation first, on a without prejudice basis, is recommended, particularly if you just want to get customer back again.

Customer is allegedly infringing by use of a process, so can proceed w/o risk of threats actions to warn him what he's doing is risking damages, injunctions, etc. and costs.

Must approach Abras more cautiously re 2^{o} infringement. Begin with a notification of your patent and "what have they to say about it?".

Perhaps even consider licensing Abras' to use your patent, perhaps while cross-licensing their version (test it to see if better than clients!)

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SAMPLE SCRIPT B

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PRELIMINARY

Before proceeding, the register should be checked to ensure that GB'01B is still in force.

This advice assumes that it is in force.

I have assumed that natural or synthetic rubber is <u>not</u> polyurethane.

INTERPRETATION

Claim 1 – Independent

1.1) Foam Bodies

The claim is directed to a plurality of articles not a single one. This interpretation is supported by the definition within the claim of an average (line 129) which implies that several articles must be present for an average to be possible of calculation. Therefore, the claim requires a plurality of articles.

"Foam" is taken to be clear – an expanded material containing voids with no material present.

1.2) "For" (line 127)

Is clear → "suitable for" consistent with normal patent claim interpretation.

1.3) "Cleaning internal surfaces…..in cooling water circuits"

The statement of invention refers to cleaning "interior" surfaces (line 10). However this has the same meaning as internal – a surface which is not accessible from the outside – and therefore I will take it to have this meaning.

The statement of invention (line 10) is only applied to "cooling water circuits" while the detailed description, for example the background discussion on P12 onwards, discusses heat exchangers. Likewise, the claim includes a limitation to heat exchangers in cooling circuits. The patentee could have chosen to exclude the limitation of heat exchangers from the claim to broaden the potential scope. Therefore, I believe that, given the problem is phrased in terms of heat

exchangers (l.12), the claim should be interpreted as foam bodies suitable for cleaning the inside of heat exchanger cooling circuits and not cooling circuits in general.

1.4) "the bodies" (l. 127)

Lacks antecedent. However, it is clear that this refers to the "foam bodies".

1.5) "spherical"

The claim defines simply "spherical" as one option of the shape. A narrow, literal interpretation would therefore be that the shape can only be spherical.

However the description (l.68 + l.98) supports a broader interpretation of "substantially spherical".

When this is considered together with the option "or irregular" in claim 1, believe that it is clear that the patentee did not intend strict adherence to the language of the claim and therefore "spherical" should be interpreted as rounded but not necessarily a perfect sphere.

1.6) "irregular"

Given its broadest interpretation, this could mean that the shape can be anything without one axis of symmetry.

However, the statement of invention describes the formation of the irregular shape by chopping with knives (l.67). Therefore, I believe irregular should be interpreted more narrowly meaning a shape containing random edges and vertices, such as would be created by chopping with knives.

1.7) "pieces of polymer"

The description mentions polymers in general with a specific example of polyurethane. Since polyurethane is the subject of claim 2 which is dependent on claim 1, polymer in claim 1 should therefore be interpreted to mean any polymer which can be formed into foam (since a foam construction is essential eg. L.71-72). I also believe that this should be interpreted as referring to the polymer comprising the foam body, since claim 2 defines the polymer as polyurethane which is only discussed in relation to the polymer body. Also repercussive effect of claim 3, which defines additional abrasive particles which implies these are separate from the polymer.

1.8) "average largest diameter"

Is defined in the description as "longest axis through the central point" → is clear and this definition will be used. The use of average means the average across all foam bodies should be taken, I believe this refers to the conventional use of average as "arithmetical mean" and not median or modal values.

1.9) "about 0.5mm" and "about 1.5mm"

This is consistent with the description (line 95) but it is unclear whether a strict interpretation of the range should be adopted, by the use of about. The patentee clearly intended to avoid strict literal interpretation of the range but this must be contrasted with adequate certainty for 3rd parties. Only 1 decimal place accuracy is used and therefore I believe the range should be interpreted 0.5 to 1.5 to an accuracy of 1 decimal place (i.e. from 0.45 to 1.549).

Claim 2 – dependent on 1 - therefore includes all features of claim 1

2.1) Is clear - use of "comprises" implies that other polymers may be present in addition to polyurethane.

Claim 3 – dependent on 2 – therefore includes all features of claim 2

3.1) "abrasive particles"

A number of abrasive particles are defined as an inclusive list on l.81 – 82. Therefore, I believe abrasive particles should be interpreted purposively as a material which can give a scouring action.

Particles implies discrete pieces and not a solid sheet of abrasive material and I will interpret it as such since claim 4 defines diameters of the particles.

3.2) "embedded"

The statement of invention uses "suspended" (l.74) which implies that particles are distributed throughout the foam and not just present at the surface as embedded implies. I believe that "embedded" should be interpreted present on the surface and within the foam body, consistent with the description. This is because in all examples the abrasive is suspended and this has the effect of producing an abrasive surface on the foam bodies, as is implied by the use of "embedded" in claim 3.

3.3) "matrix of the polymer"

I believe from the description that the matrix of the polymer is the polymer foam itself. (See lines 75 – 78: the abrasive is suspended in a polymer which is then formed.

Claim 4 – dependent on 3 - therefore includes all features of 3

4.1) "about 100μm"

The description refers to a range of 50 to 150 and preferably 80 – 120μm. However the claim specifies about 100μm. The description therefore supports a broader interpretation than literally 100μm.

However the patentee could have chosen the range for broader protection. Therefore I believe that strict adherence to 100μm is not required but the range can not extend as far as 80 – 120 as stated In the description. (NB the description could be interpreted as supporting the interpretation of a range from 50 to 149 as these are both "100" to the nearest hundred, but I think that is unlikely to be accepted as the claim could have used the range).

Claim 5 – dependent on 3 or 4 - therefore includes either all features of 3 or all features of 4.

5.1) "about 5 or 6"

This is not consistent with the SoI on line 78. This is not in claim 5. I believe it should be interpreted as a range from 5 – 6 as the SoI at line 78 defines the ratio as a range from 5 – 6.

5.2) The SoI defines the ratio as "by weight" l.78. This is not in claim 5. However a literal interpretation of claim 5 would lead to the conclusion that only 5 or 6 abrasive particles can be present as there is only one polymer particle. Therefore, I believe that claim 5 should be interpreted as if the ratio was "by weight" since this is clearly what was intended with reference to the description.

Claim 6 – Independent Method Claim.

6.1) "Process for cleaning surfaces"

→ Not limited to heat exchangers as claim 1.

6.2) "foam bodies…..claims 1 to 5"

→ The method requires the use of foam body falling under any of claims 1 – 5.

6.3) "pivotal sieve"

The prior art acknowledged on lines 47 – 50 use a sieve with valves. Unlike the acknowledged prior art a pivotal sieve allows use of valves to be overcome.

Therefore, I believe a "pivotal sieve" should be interpreted as one which can be rotated on axis to move it into or out of the constant flow.

INFRINGEMENT

There are two potential direct infringements S60(1) of claims 1 to 5. If SB1 and SB2 contain all the features of any of claims 1 – 5, then their sale or importation by A will constitute a direct infringement.

There is not a specific claim to the retro-fit device, however its supply could constitute "means essential" to the process of claim 6, enabling an action for contributory infringement against A.

The use of the retro-fit device by the customer of A could also constitute a direct infringement of the process of claim 6. By supplying A with foam bodies the overseas manufacturer may be supplying means essential to the invention of claim 6 and therefore be liable for contributory infringement under S60(2).

SB1

All details on SB1 are given in the clients letter.

Abrazosphere is clearly contemplating using its products in heat exchangers (it is selling to the same customers). Natural rubber is a polymer according the constructon of 1.7 above, and it is clearly foamed to produce voids (see 1.1 above) "Chunks" are referred to and therefore a plurality of articles are sold. The chunks are irregular and I assume this means they contain random edges and vertices (as in 1.6 above). (Need to check with the client). If only 20% have a longest diameter outside the range of 0.5 to 1.5mm it seems reasonable that the arithmetical mean is within 0.5 to 1.5mm. (see 1.8 above)

Therefore, SB1 is an infringement of claim 1.

The polymer is not polyurethane → claim 2 not infringed.

SB1 contains abrasive particles which can give a scouring action and they are "dispersed" therefore not present only on the surface (3.2 above). However, as the polymer is not polyurethane and claim 3 is dependent on claim 2, claim is not infringed.

Diameters of abrasive particles not known for SB1 – no conclusion possible for claim 4.

Polymer: abrasive particle not known therefore no conclusion possible for claim 5.

SB2

SB2 is applied to heat exchangers (line 4). The cleaning bodies are referred to by diameters which implies that they are generally spherical (+ fig 1) and fall within the construction of 1.5 above.

A rubber sponge is used this will contain voids and rubber is a polymer so fall within the interpretation in 1.1 and 1.7 above. However, the bodies come in a range of sizes from 1m to 5mm, so some fall outside the 0.5 to 1.5mm range of claim 1.

Nevertheless, some of the bodies will fall within the range e.g. clients 1 mm sample which had a range of 0.9 to 1.5mm (1.35, clients letter).

Therefore supply of SB2 in its current form has all the features of claim 1 and therefore is an infringement.

Note, however, A could easily avoid this by supplying, for example, size ranges 2 to 5mm which would not be an infringement.

In SB2 the body is formed from rubber which is not polyurethane and therefore falls outside the construction of claim 2 (2.1 with reference to 1.7 above). Polyurethane is only used in SB2 as an abrasive particle, not the body.

As the features of claim 2 are not present in the infringement claims 3,4 and 5 which depends on claim 2 (5 via 3 and 4) are also not infringed because the feature of polyurethane is not present.

There is no direct infringement of claim 6. However it is arguable that the supply of SB1 and SB2 (which both constitute an infringement of at least claim1) together with an identical retro-fit device (which must have a pivotal sieve) would constitute "means essential" to the process of claim 6. This is supported by the discussion of known retro-fit systems on l.47 to 50, since the other elements of claim 6 seem to be known from those systems.

VALIDITY

Novelty

The description of A acknowledges the use of chemical descaleant (line12 – 24) and simple foam blocks (lines 25 – 32). There is also a prior retro-fit system discussed at lines 47 – 50.

Document B is full prior art cited during presentation (and seems to the basis for the acknowledgement of the foam blocks and retro-fit system.)

Document C was published before priority and therefore is full prior art. It includes an acknowledgement of the prior art scourer at lines 7 – 13.

Use of a chemical descalant is clearly not relevant to foam bodies and will not be considered further.

The foam bodies and retro-fit system acknowledged in A are both discussed in more detail in doc B and will be considered with that document.

Document B

From amendments in prosecution, we know that document B does not disclose the size range in claim 1 instead it states up to 2mm average longest diameter. However, for completeness the presence of the other features will be analysed briefly.

Document B contemplates sponge rubber bodies which are a polymer with voids and fall within para 1.1 and 1.7 above. No shape of the bodies is given, but as steel balls are referred to there is clear and unmistakable direction that they could also be balls and therefore be substantially spherical as required by para 1.5 above.

Furthermore an air conditioning unit must contain a cooling water circuit and document B considers internal surfaces (line 7).

Therefore claim 1 is hard over B because it does not disclose the size range.

Claim 2 – 5 are dependent on claim 1 and therefore are also novel for the same reason.

Claim 6 refers to the use of foam bodies according to claims 1 to 5 and therefore is also novel. There also appears to be no discussion of the "pivotal sieve" required by claim 6 – in Doc B the sieve is fixed.

Document C – Novelty

The domestic scouring pads discussed at lines 7 to 13 are intended for use as single articles, not a plurality of articles (see 1.1 above).

Furthermore, they are not directed at cleaning the inside of heat exchanger tubes. They also have a much longer average longest axis through the central point than 0.5 to 1.5mm from common knowledge of scourers (see 1.9 above).

Therefore, claim 1 is novel over the domestic scourer in C.

Claims 2 and 5 depend on 1, therefore contain all its features and are also novel.

Claim 6 requires use of foam bodies according to claim 1 and therefore is also novel.

Document C – Main Body

The cleaning device of Doc C is not applied to cleaning internal surfaces of heat exchangers, it also describes a single article, not a plurality of articles (see 1.1 above). In addition, although polymer construction including voids is disclosed (l.27 – 28) the body is not spherical or irregular as interpreted in 1.5 and 1.6 above, rather it is a regular cuboid (see Fig 1).

Therefore claim 1 is novel over Document C.

Claims 2 to 5 depend on claim 1 and therefore is also novel.

Claim 6 requires use of foam bodies according to claim 1 to 5 and therefore is also novel.

INVENTIVE STEP

From the analysis above, claim 1 is novel over all the prior art documents. The closest prior art is represented by Doc B, which discloses all the features of claim 1 except the size range.

In this respect, none of the other prior art documents give further details on the range of sizes of the foam bodies. Doc B defines o average longest diameter of 2mm and no other examples are given. In contrast claim 1 of the patent defines a range of 0.5 to 1.5mm. The body of description of the patent gives some advantages of the different sizes. Line 62 notes that the smaller bodies are useful for complex shapes while at line 87 – 88 larger bodies are mentioned as impeding the flow of cooling water. Very small foam bodies are also difficult to remove from the circuit (line 85).

Given that no other document discusses the size of the foam bodies, the court will need to decide whether the range of 0.5 to 1.5mm does represent the inventive step over 2mm.

Arguments against the inventive step are that the benefits are obvious (e.g. small things are generally harder to sieve out and larger things will tend to block circuits). In that case, claim 1 would be invalid for lack of inventive step – although evidence from a skilled person is required to establish the common general knowledge.

Arguments in support of the inventive step include that there is no specific teaching of it in any of the prior art – if it was indeed obvious why does Document B not to refer to a range instead of just stating "typically 2mm." Furthermore, the range defined in claim 1 has a specific upper and lower limit, which are derived by considering the benefits and drawbacks of a particular size of foam body.

The outcome of this will depend on the evidence of the skilled person, but I believe that the argument is in support of inventive step are stronger and consequently claim 1 does represent an inventive step → Valid

In the event that I am wrong on my conclusion on claim 1, claims 2 – 5 which depend on claim 1 will be analysed. However they will also represent an inventive step because they are dependent on claim 1, in the event I am correct regarding claim 1.

Claim 2

Polyurethane is not disclosed in the context of a foam body in any prior art. However, its substitution for rubber will probably be considered obvious as the patent itself acknowledges use of "elastomeric material" l.29 and I believe polyurethane is an elastomer. If there are specific, surprising effects of using polyurethane the court may decide otherwise, this will depend on evidence of the skilled person.

Claim 3

The patent itself acknowledges abrasive particles can be provided l.31-32. Doc. C also contemplates use of abrasive particles.

However no document discussed embedding abrasive particles by suspending them in a polymer matrix. This allows simple manufacturing (Example 2) and therefore is arguably inventive. (Again, evidence of a skilled person is required to be sure).

Therefore additional features of claim 3 → Valid.

Claim 4

No specific disclosure of 100μm abrasive particles required by claim 4 in B or C.

Therefore arguably inventive – depends whether it's a workshop alternative and evidence.

Claim 5

No disclosure of particle weight ratio → inventive, although needs evidence of benefits.

Claim 6

Document B discusses a process similar to claim 6, but not the use of a pivotal sieve, or the use of foam bodies as defined in claim 1 – 5.

Above I concluded that claim 1 was valid and therefore claim 6 is valid by its use of foam bodies according to claim 1. In particular, use of bodies of the size range in claim 1 enable efficient recovery of the foam bodies and good cleaning action. In addition the pivotal sieve which avoids the use of valves also appears to be inventive, although evidence of the skilled man is required to determine that it is not a standard workshop variant.

Validity – Sufficiency

The construction of the foam bodies appears to be described in sufficient detail to enable a skilled person to make them. Therefore claims 1 to 5 are not invalid for lack of sufficiency.

Claim 6 may be lacking the essential feature of a second pivotal sieve (line 55). This seems essential to return the cleaned bodies to the detergent. However the description seems to be sufficient for the skilled person to make the retro-fit system and carry out the method therefore claim 6 is not invalid for lack of sufficiency.

Summary – Validity & Infringement

	INFRINGEMENT		**VALIDITY**	
CLAIM	***SB1***	***SB2***	***B***	***C***
1	Y-Abruz	Y-Abruz	Y	Y
2	N	N	Y	Y
3	N	N	Y	Y
4	N	N	Y	Y
5	N	N	Y	Y
6	Y- ex-customer Contributor - Araz	Y-ex-customer Contributor - abraz	Y	Y

LETTER OF ADVICE

Dear Client,

I enclose my analysis of Astracost's activity and your patent GB'01B.

I am pleased to inform you that I believe that a UK court will hold the present claims of your patent to be valid, and that products SB1 and SB2 both constitute an infringement of claim 1.

Therefore Abrazo… is liable for infringement and I would advise you to write to them immediately drawing attention to your patent, and stating that you believe that it is infringed. If no reply is received you could consider applying to the court for an injunction against Abrazo to stop manufacture. I also advise you to seek damages or an account of profits in respect of Abrazo's actions so far. However UK court actions can be expensive (£100K or more) so it is worth seeing if negotiations can succeed before incurring the risk and cost. I assume that as the product is important to your business you will not wish to offer Abrazo a licence.

If you decide to commence court action, Abrazo will almost certainly counter claim that the patent is invalid. In this respect you should bear in mind that court may conclude the opposite that I have, i.e. that the range in claim 1 is obvious.

There do not appear to be any amendments which would strengthen claim 1 and still catch Abrazophere. For example, adding claim 2 and 3 would give stronger arguments that claim 1 is inventive but would not include SB1 or SB2 as they do not use polyurethane foam.

Regarding the retro-fit device, your patent does not have a specific claim for the device. However, claim 6 is a method for using the device. I believe the Abrazo is liable under S60(2) PA77 for contributory infringement of claim 6 by supplying the foam bodies and retro-fit device to your customer because these are means essential to the process.

It also appears that your ex-customer is directly carrying out the process of claim 6. I assume he is an industrial and not a private, non-commercial user, and therefore he is liable for infringement under S60(1) UK PA77.

In this respect I advise you to write to both Abrazosphere and the ex-customer drawing attention to your patent. The ex-customer may be receptive of an offer not to bring action if he returns to you.

You could consider taking court action for damages in respect of comtributory infringement against Abrazo. An injunction could be effective against the ex-customer as he would then be unable to clean his heat exchangers.

If you wish to apply for an injunction on proceedings without notice (i.e. without a full high court hearing which can take years to conclude) the courts will act to maintain the status quo so it is advisable to act quickly before Abrazo builds up significant business. You may also be required to make a payment into court to support a cross–undertaking of damages. It also appears that damages may be a suitable remedy and therefore the court may refuse an interim injunction.

NB – Advise negotiation as Abrazo could easily avoid infringement by altering the size of its foam bodies to >1.5mm.

* * * * * * * *

2004 PAPER P6
SAMPLE SCRIPT C

This script has been supplied by the JEB as an example of an answer which achieved a pass in the relevant paper. It is not to be taken as a "model answer", nor is there any indication of the mark awarded to the answer. The script is a transcript of the handwritten answer provided by the candidate, with no alterations, other than in the formatting, such as the emboldening of headings and italicism of case references, to improve readability.

CONSTRUCTION.

Cl 1

1.1) *"Foam bodies for cleaning … circuits."*

Cleaning elements intended for cleaning internal surfaces of heat exchangers. Foam bodies may be any size suited for cleaning operations and surfaces to be cleaned (see p5 l.59-60). Surface can be smooth or irregular see l.60 -61 of p5.

May be "substantially spherical in shape" see p.5 l,68-69 - may be produced "by forming the polymer in spherical moulds" see p.5 l.69 or from "irregularly shaped chunks of foam" see l.65-69 p.5.

"Preferred polymer is polyurethane" see p.5 l.72.

Any item which can perform cleaning of internal surface of heat exchanger is therefore a foam body no restriction on nature of polymer or size and shape of body. Ordinary meaning of foam suggests some plastic qualities required however nothing in description to support this – and depends on way polymer such as polyurethane used whether deformable/plastic or not. Therefore I construe 1.1 as any size or shape of body suited for this cleaning task.

1.2) *"in which the bodies are formed"* = more than one body made of , no need for bodies to be made separately as in example 2, can be cut as described on p.6 l.105 from a single block of natural rubber latex.

1.3) *"spherical or irregular pieces of polymer"* = clear in context, shape immaterial. Polymer can be any polymeric material not limited to polyurethane, or even synthetic polymers as example 1 employs "natural rubber latex" see l.104 p.6.

1.4) *"with an average largest diameter of about 0.5 to 1.5mm"* = about = 0.5 to 1.5mm or variants which are close to this size as to have no material effect on way foam bodies function.

p.6 l.97 clarifies "by largest diameter, whether the total body is a sphere or irregular, we mean the longest axis through central point"

Cl 2

2.1) *"Foam bodies…1"* = 2+1

2.2) *"in which the polymer <u>comprises</u> polyurethane"* = Polymer which forms the foam bodies includes polyurethane and anything else.

Cl 3

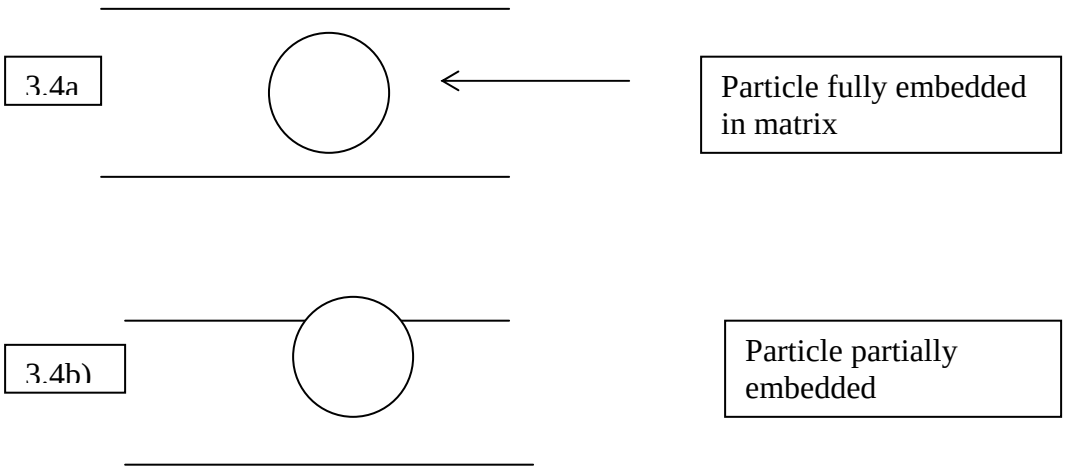
3.1) *"Foam bodies…2"* = 3+2+1

3.2) *"Which further comprises"* = has

3.3) "Abrasive particles" = See p.4 l.31 "abrasive particles on the surface or in the matrix of the foam…scouring action" – even though this relates to prior art it is clear that this is what scouring particles are. Abrasive particles are separate from, the polymer even though formed within it or its surface.

3.4) *"Embedded in a matrix of the polymer"*

Ordinary meaning = abrasive particles



3.4a) Scouring particles won't work as nothing upstanding. But also on p.5 l.74-75 "abrasive contained in body and on surface of the polymer".

Therefore I construe 3.4 as 3.4a <u>and</u> 3.4b.

Also refers to "a" matrix not the matrix therefore no need for abrasive particles to be evenly distributed throughout matrix of polymer. Just so long as contained in the body of some of the polymer or on its surface sufficient.

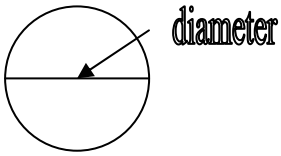
Cl 4

4.1) *"Foam bodies…3"* = 4+3+2+1

4.2 *"In which the abrasive…100microns in diameter"* (see para 1.4 above for construction of "about") p.6 l97-98 refers only to foam body or sphere.

Suitable abrasives are "particulate materials…pumice" see p.6 l.80-81 i.e. substantially spherical.

Therefore diameter should have its original meaning for particulate matter which will be comprised of substantially spherical particles i.e.



Cl 5

5.1) *"Foam bodies according to claim 3"* = 5+3+2+1

5.2) *"or claim 4"* = 5+4+3+2+1

5.3) *"In which the polymer to abrasive particle ratio is 1 to about 5 or 6"* (see para 1.4 above for construction of "about") See p.6 l.78-79 "abrasive content is preferably…5 to 6 parts by weight…to 1 part by weight of the polymer".

Therefore I construe 5.3 as weight of polymer: abrasive = 1:5 to 6.

Cl. 6

Independant claim to use of retrofit device – not to device itself.

6.1) *"A process…claims 1 to 5"* = clear in context.

6.2) *"Is passed over a surface to be cleaned"* = clear in context.

6.3) *"Such that the foam bodies…therefrom"* = clear in context.

6.4) *"Wherein the foam bodies…using a pivotal sieve positioned in an outlet connection"* = foam bodies removed from circulating detergent using a pivotal sieve.

Pivotal = ordinary meaning arranged about a fulcrum or pivot point to allow rotary motion.

Sieve positioned in an outlet connection according to claim then transfers foam bodies (or the unwanted particles therefrom) to cleaning means.

Where cleaned and returned to detergent, makes no sense to return dirt/unwanted particles, therefore I construe 6.4 as foam bodies removed, transferred to cleaning means, cleaned and returned.

Pivot sieve suggests transferring of foam bodies to cleaning means involves pivotal motion and I construe accordingly.

6.5) *"Transferred to <u>cleaning</u> <u>means</u>"* = cleaning means = means for cleaning foam bodies not just any means.

6.6) *"Cleaned and returned to the detergent"* – Claim doesn't specify how foam bodies returned to detergent either using pivotal sieve or otherwise. P.5 l.55 talks of "cleaning bodies…via a second pivotal sieve". However as feature not in claim I construe 6.6 as any step which permits cleaned foam bodies to be returned to detergent.

INFRINGEMENT – using same nomenclature as for construction

SB1 – Made by Abrazosphere

1.1 = Present

> SB1 relates to a sponge rubber body see l.7 p.12 "for cleaning the interior of heat exchanger tubes" see l.24-25 p.12.

1.2+1.3 = Present

> "sponge rubber bodies can be made of natural or synthetic rubber" and "come in a range of sizes with diameters from 1mm to 5mm" see p.12 l.9-10. Client's letter tells chunks irregular see l29.

1.4 = Present

> In at least 80% of SB1 particles analysed by client largest diameter was within the stated range.

Therefore SB1 has all the features of claim 1.

Cl 2

2.1 = Present

2.2 – Only abrasive element of SB1 = polyurethane see L23 P12 “sponge rubber body made of natural or synthetic rubber” see P12 L16

Therefore according to my construction of polymer polyurethane polymer feature is absent.

(Unless my construction of polymer is wrong and should include any part of the whole foam body can comprise polyurethane).

Cl 3

Not infringed by SB1 due to dependence on claim 2.

However feature of abrasive particles embedded in polymer present in SB1. see l.29 p.2.

Cl 4

SB1 not infringed due to dependence on claim 3 but following l.10-11 p.12 if foam body 1 mm as taught on l.10 p.12 granular abrasive elements will be at least 0.1mm (i.e.10 x smaller) = 100microns.

Therefore feature of claim 4 present in SB1.

Cl 5

SB1 does not infringe claim 5 due to dependence on claim 3 or 4

5.3 – ? - Check with client. Can’t tell whether feature present or absent as only told lengths of abrasive and size of polymer spheres/pieces not weights.

INFRINGEMENT BY SB2

Cl 1

1.1 + 1.2 + 1.3 = Present

Same reasons as SB1

1.4 = Present

Client letter l.34 spheres “1mm”

Therefore SB2 has all features of claim 1.

Cl 2

2.1 = Present

2.2 = Absent

Polymer does not comprise polyurethane for same reason as outlined for SB1 only the abrasive elements comprise polyurethane.

Therefore SB2 does not have all the features of claim 2.

Cl 3

3.1 = Absent

3.2 = Present

Abrasive particles 3a + 3b embedded in matrix of adhesive layer 2 located at surface of foam body therefore conforms to my construction of 3.2.

Therefore SB2 has feature of claim 3 but no infringement due to dependence on claim 2.

Cl 4

4.1 = Absent

4.2 = Present

Client letter p.2 l.36 “abrasive particles…100 to 200 microns”

Therefore feature of claim 4 present in SB2 but no infringement due to dependence of claim 3.

Cl 5

5.1 = Absent

5.2 = Absent

5.3 = ?

As with SB1 not enough information to establish if feature present – check with client.

Cl 6

Not infringed by SB1 or SB2.

However retrofit device supplied by overseas manufacturer, identical to clients retrofit device to the use of which claim 6 is directed.

Therefore overseas device must have all features of claim 6.

INFRINGEMENT – ACTS/PARTIES

Sale, use, keeping for sale or otherwise, importation, offer for sale, making SB1 or SB2 in UK directly infringes claim 1 of client's patent.

Claims 2 to 5 not infringed by SB1 or SB2 unless my construction of polymer wrong

Therefore Abrazophere directly infringing claim 1 by importing and selling, offering for sale and keeping in UK SB1 and SB2 foam bodies.

Clients ex-customer directly infringes claim 1 by using SB1 or SB2 foam bodies, and claim 6 by using device and SB1 or SB2 to work cleaning process.

Retrofit device is an essential means for putting process of claim 6 into effect.

Therefore Abrazophere indirectly infringe claim 6 by supplying ex-customer with an essential means intended to put process of claim 6 into effect in UK.

They (Abrazophere) are also joint tortfeasors who are inducing a direct infringement of claim 6 by our clients ex-customer, thus they can be joined in infringement proceedings even though outside the UK.

VALIDITY OF CLAIMS

NOVELTY – OVER C

<u>Cl 1</u>

1.1 = Absent

C does not disclose foam bodies for cleaning internal surfaces of heat exchangers

Therefore claim 1 novel over C

Cl 2 to 5

Novel over C due to dependence on claim 1.

Cl 6

6.1 = Absent C does not disclose a cleaning process as claimed in claim 6.

Therefore claim 6 novel over C.

NOVELTY OVER PRIOR ART IN PATENT A INTRODUCTION

1.1 = Absent

Wet sponge described on l.25 of p.4 of patent not for cleaning internal surfaces of heat exchangers

Therefore Claim 1 novel over sponge.
Claims 2 to 5 novel over sponge.
Claim 6 novel over sponge for same reason as C.

NOVELTY OVER B

Cl 1

1.1 = Present – see p8. l.12-13 }
}
1.2 = Present – see p.8 l.12-13 } as amendment required to overcome B during prosecution only difference = diameters
}
1.3 = Present – see p.8 l.12-13 }

1.4 = Absent - 2mm diameter bodies disclosed in B

Therefore claim 1 novel over B.

Cl 2 – 5

Novel over B due to dependence on claim 1.

CL 2

Feature of polymer = polyurethane absent in B; bodies in B = “sponge rubber is natural rubber latex” see p8 L15

Therefore feature of claim 2 also absent from B.

CL 6 Novelty over B

6.1 = Absent

Foam bodies in B not as claimed in claims 1 – 6

6.2 = Present

Foam cleaning bodies are passed over a surface to be cleaned

6.3 = Present

6.4 = Absent

"bodies are allowed to sluice through a channel" see p.8 l.26

"cleaning bodies enter "a sieve basket when first valve in system is open" see p.8 l.27

"bodies re-enter the fluid stream via a second channel…in fluid passing in opposite direction through sieve" see p.8 l.27-29

No pivotal sieve

Therefore claim 6 novel over B

INVENTIVE STEP.

Cl 1

B = Closest prior art of skilled man – i.e. a heat exchanger engineer at priority date of A when seeking to arrive at claimed invention.

Only difference between B and claim 1 is size of foam bodies; being 0.5 to 1.5mm in claim 1 whilst known cleaning bodies see p.8 l.14 are typically "2mm" in diameter.

Patent A teaches on p.5 l.59 "the foam bodies…may be any size." No specific benefit associated with claimed size. Therefore appears to be merely an arbitrary selection which required nothing more than workshop variation to reach.

Unclear why known foam bodies 2mm in diameter may indicate prejudice in field. Would need guidance from skilled addressee.

However on balance I consider claim 1 lacks inventive step over B alone.

Cl 2

Difference between claim 2 and B is that polymer comprises polyurethane, whilst in B sponge rubber used.

Polyurethane = an alternative material it is just a single example of any number of likely suitable materials for forming foam bodies.

Selecting a suitable synthetic polymer such as polyurethane having the desired characteristics of the foam body polymer, would I contend not require inventive effort.

Therefore I consider claim 2 also lacks inventive step over B alone.

CL 3

Feature of embedding abrasive particles in polymer matrix so well known as described p.4 l.30 of patent A as to be common general knowledge.

Therefore I consider feature of claim 3 adds nothing inventive and it too lacks inventive step over B alone.

Alternatively, if more guidance needed, skilled man could readily consult C as in same field i.e. cleaning devices and learn that applying abrasive particles to the foam bodies would be desirable. See p.10 l.55.

Therefore I consider claim 3 lacks inventive step over B and common general knowledge or B + C.

Cl 4

Size limitation of abrasive particles has no specific advantage associated with it thus it too is a mere arbitrary selection.

Therefore claim 4 lacks inventive step over B alone.

Cl 5

Ratio lacks inventive step over B alone for same reason as claim 4 = an arbitrary size selection.

Cl 6

The only difference between the cleaning process disclosed in B and in claim 6 (other than the use of foam bodies as claimed in claims 1 to 5) is the pivotal sieve.

The skilled addressee starting from the “retrofit” device of B seeking to avoid the continuous opening and closing of valves which patent A identifies as a problem on p.5 l.51, would not necessarily consider using a pivotal sieve as claimed in claim 6, to remove the foam bodies to the circulating detergent.

None of the other documents discloses a cleaning process let alone a pivotal sieve.

Given the identification of the difficulty associated with opening and closing valves continuously may not have been immediately apparent. Which together with an absence of any motivation to for a pivot sieve arrangement seems to suggest claim 6 inventive.

Pivoting sieve(s) = only on of any number of ways the process/retrofit device could have been adapted to address this problem. Hence to suggest claim 6 obvious over B alone = hindsight.

Therefore I consider claim 6 inventive.

LETTER TO CLIENT

Dear client,

As detailed above Abrazosphere and your ex-customers activities relating to SB1 and SB2 directly infringe claim 1.

Abrazosphere also inducing your ex-customer to directly infringe claim 6.

Claims 2 to 5 not infringed as they stand due to polyurethane feature of claim 2. However if I am wrong in my analysis of this term the situation regarding claims 2 to 5 may be far stronger. However claim 1 may lack inventive step, amendment at examiners discretion should be sought asap. Claim 6 novel and inventive (valid save for reference to claims 1 to 5).

Retrofit device not claimed in your patent. Only use of device in claim 6 hence my conclusions above.

Possible amendment = insert claim 3 and claim 4 into claim 1, as although each feature alone obvious, together = too many steps for skilled addressee to take from B therefore likely inventive

Need more info about ratio of SB1 and SB2 to assess infringement of claim 5.

Also features of claim 3 and 4 present in both SB1 and SB2 therefore claim 1 thus amended would be valid and infringed.

Seek amendment to make claim 6 independent of claims 1 – 5

Clear from p.5 l.59 “foam bodies for use in process”

Need not to be restricted to those claimed in claims 1 to 5.

Consider offering a licence to Abrazosphere to distribute and sell SB1 and SB2 in UK. Royalty reasonable as once invalidity of claims 1 to 5 cured through amendment position strong.

Consider offering a licence to Abrazosphere to distribute retrofit device in UK as of little interest to client i.e. he often gives it away free, royalty would be low and still worth having.

If negotiations fail can sue ex-customer and Abrazosphere for infringement of claims 1 and 6. Can obtain injunction to stop and delivery up or amount of profits.

Can use proceedings against ex-customer to gain access to Abrazosphere.

Interim injunction unlikely if amendments outstanding.

* * * * * * * *