



Neutral Citation Number: [2026] EWHC 2448 (IPEC)

Claim No: IP-2024-0000135

IN THE HIGH COURT OF JUSTICE
BUSINESS AND PROPERTY COURTS OF ENGLAND AND WALES
INTELLECTUAL PROPERTY ENTERPRISE COURT

The Rolls Building
7 Rolls Buildings
Fetter Lane
London EC4A 1NL

Date: 25 September 2026

Before:

DAVID STONE
(sitting as a Deputy High Court Judge)

Between:

DLP Limited

Claimant

- and -

Coram UK Holding Limited

Defendant

MR DAVID IVISON (instructed by **SHAKESPEARE MARTINEAU LLP**) for the
Claimant

MR THOMAS ST QUINTIN (instructed by **BROWNE JACOBSON LLP**) for the
Defendant

Hearing dates: 21 and 22 July 2026

APPROVED JUDGMENT

This judgment was handed down remotely at 10.30am on 25 September 2026 by circulation to the parties or their representatives by e-mail and by release to the National Archives.

David Stone (sitting as Deputy High Court Judge):

1. This is my judgment following a two-day trial of liability only in this action commenced by the Claimant, DLP Limited (**DLP**) against the Defendant, Coram UK Holding Limited (**Coram**) for infringement of UK Patent No GB 2,446,666 (**the Patent**) titled “an electric shower-waste pump and control unit”. The **Priority Date** of the patent is 17 February 2007. Two of Coram’s products are alleged to infringe the Patent: the **Premium Pump** and the **Bluetooth Pump**. By the time of the trial, infringement was alleged only of claim 1 (as granted), claim 1 (as proposed to be amended) and claim 7 (as proposed to be amended) (the **Selected Claims**), although almost all of the argument before me related to claim 1 as granted.
2. Coram had counterclaimed for invalidity of the Patent on the basis of lack of novelty and/or obviousness in light of three **Prior Art Citations**, although the novelty attack was abandoned towards the close of the trial:
 - i) **Grumbach**, a German patent application DE3516656 A1 published on 13 November 1986 and titled “Pumpenaggregat für Badewannen und dergl” translated as “Pump unit for bathtubs and the like” (novelty and obviousness);
 - ii) **Gontar**, a UK patent application titled “apparatus for draining a shower tray” published on 27 August 1997 (obviousness); and
 - iii) **Quantum**, a commercialised product which was agreed to be part of the Common General Knowledge (**CGK**) at the Priority Date (obviousness).
3. To deal with the invalidity attack, as noted above DLP has proposed amendments to the Patent. Coram resists those amendments on the basis that they constitute added matter.
4. At the CMC on 24 November 2025, HHJ Hacon approved the list of issues for trial as follows (I have adapted the defined terms to match those used in this judgment, and removed the references to lack of novelty which is no longer pursued):

“Infringement

1. Does the Premium Pump satisfy the requirements of the Selected Claims?
2. If and insofar as it is maintained to be materially different from the Premium Pump, does the Bluetooth Pump satisfy the requirements of the Selected Claims?

Validity

3. In relation to each of the Prior Art Citations:

...

(b) are the Selected Claims (or any of them) obvious in light of the Prior Art Citations?

Amendment

4. If and insofar as they are opposed, are the proposed amendments to the Patent allowable?"
5. From that short list of issues, and as counsel for each side averred, the case would appear to be comparatively straightforward (it was described as "simple"). However, that was how neither side litigated the dispute. Procedural manoeuvres were alleged in both directions. Extreme positions were taken on several issues, including the expert witnesses. This judgment is therefore necessarily longer than usual because of the multiple issues raised by the parties, many of which were peripheral to the dispute. To the extent I have not dealt, or not dealt adequately, with an issue, the parties were invited to raise that with me on review on the circulated draft judgment so that the position could be corrected.

Witnesses

6. In the IPEC, the Statements of Case stand as evidence in the proceedings. These were supported by statements of truth, and those signing the statements of truth were not cross-examined. I therefore accept that evidence.
7. Each side relied on an expert witness:
- i) DLP called Mr Clive Vare, who trained in electrical engineering and has had various roles involving pump technology; and
 - ii) Coram called Mr Matthew Toms, who has worked in engineering since 1988, including in relation to plumbing and heating.
8. Each expert filed an initial report. Mr Vare's was 66 pages (plus 28 pages of exhibits) and Mr Toms' was 70 pages (plus 84 pages of exhibits). Each then filed a Reply Report (Mr Vare's was 22 pages and Mr Toms' was 33 pages). Both were cross-examined.
9. Each side criticised the other's expert. I do not consider those attacks to be justified for the reasons set out below. I consider each expert came to court to assist the court in an appropriate fashion. Whilst I have reached conclusions that differ from their views in various places (which I set out below), I do not consider that it can be said that either witness was unreliable, or that I should discount all their evidence for the reasons given, or otherwise. I can therefore deal with these criticisms quite briefly.

Mr Vare

10. Of Mr Vare, it was said that he was a poor witness. Criticisms were levelled on three bases. I deal first with those criticisms that were said not to be Mr Vare's fault. It was submitted that he was wrongly instructed in relation to obviousness, and that he should have excluded commercial matters from his

consideration. It was also said that he adopted the wrong approach to the prior art: rather than looking at the prior art to see what it might teach the skilled addressee, it was said that Mr Vare instead opined on whether the prior art citations were good examples of what they were. As these issues were not said to impact Mr Vare's evidence overall, I consider them as necessary when dealing with obviousness and the prior art.

11. Second, it was said that Mr Vare was not independent on the basis of:
 - i) his lack of candour about his relationship with his prior employer, an entity referred at trial to as **Whale**, the manufacturer of the Premium Pump and the Bluetooth Pump;
 - ii) his failure to bring to the Court's attention matters within his own knowledge;
 - iii) his failure to comply with his duty to correct errors; and
 - iv) he was evasive when questioned and acted as an advocate in DLP's case.
12. I deal with each in turn:
 - i) The first of these criticisms had surfaced earlier in an application I heard on 16 June 2026 (that is, just over a month prior to trial) to admit some additional witness statements which were said to call into question Mr Vare's independence and expertise. I allowed in some of the evidence, but not all of it, for the reasons I gave at the time. The attack continued in cross-examination, and in Coram's counsel's closing submissions. It was, in short, said that Mr Vare had left Whale in contentious circumstances in 2013 and that he still bore a grudge, such that his ability to assist the Court as an independent expert was compromised. I listened very carefully in Court to the way in which Mr Vare gave his evidence, and to his explanation that, whilst he had been upset at the time, he was now reconciled with Whale, such that his independence was not impacted. He also spoke about what he had told DLP's instructing solicitors. I accept his answers. In my judgment, Mr Vare bore no animus towards Whale at the time he produced his two reports, nor at the time he was cross-examined. Nor do I consider that he withheld or under-reported the relevant information – he told DLP's instructing solicitors, as they and he accepted. This attack goes nowhere.
 - ii) The second criticism of Mr Vare's impartiality relates to a Whale product which was released to the market 4 days after the Priority Date. Mr Vare's written evidence was that membrane switches were not used on shower pumps at the priority date as far as he was aware. Coram's counsel accepted that these were true statements, but described it as a "serious failure" not to raise the issue of their use 4 days after the Priority Date. I disagree. An expert asked to consider the position at the priority date is entitled to comply with those instructions. I do not accept Coram's counsel's submission that I should reject Mr Vare's evidence (at least in part) because of a statement he made that was true.

- iii) The third criticism of Mr Vare's impartiality was said to be his failure to correct errors. This arose in respect of a product (which was CGK) called the Archimedes 4. My difficulty with this criticism is that membrane switches were not central to any issue before me, so Mr Vare's comments on this aspect of the evidence are really neither here nor there. I reject the criticism, at least as it was used to suggest that I should discount Mr Vare's evidence as a whole.
 - iv) Fourth and finally, Mr Vare's impartiality was questioned on the basis of the way in which he gave his oral testimony, which was said to be evasive and advocative rather than neutral. I watched and listened carefully to Mr Vare in court. I do not consider that the criticism is made out. As I have said, I consider that Mr Vare came to court to assist as an impartial expert. I therefore reject the second of Coram's criticisms, that Mr Vare was not independent.
13. Third it was said that Mr Vare did not have the expertise that he professed to have and therefore lacked the ability to educate the court with relevant knowledge about what the skilled addressee would have known and done. DLP's counsel described this as "an unprecedented (at least in the Claimant's legal team's experience of patent litigation) and exceptionally aggressive *ad hominem* attack on Mr Vare, which included seeking out former employers in attempts to unearth some basis for accusing him of having given misleading evidence about his professional experience". I agree with that submission. Mr Vare answered fairly and straightforwardly the questions put to him in cross-examination about his expertise. I do not consider that he exaggerated his CV or his expertise or experience more generally. I also reject this attack.

Mr Toms

14. I turn now to Mr Toms. DLP's counsel made a number of criticisms of Mr Toms' evidence. He was said to slip into advocacy on behalf of Coram: it was said that the intensive period for the production of his first report resulted in his starting to view his task as to help Coram. This was said to manifest itself in two ways. First was his approach to novelty in relation to the Grumbach prior art – I return to that criticism when discussing that issue (particularly in relation to the space beneath the bathtub, and the use of silicone around the bath), but for present purposes note that (a) the novelty invalidity claim was dropped towards the end of the trial so this evidence was in any event no longer relevant; and (b) in my judgment, it does not compromise Mr Toms' evidence as a whole. Second, it was said that Mr Toms inappropriately attacked Mr Vare by describing some of his opinions as "strange". Mr Toms' reply report said in relation to Mr Vare's report "this is a strange comment to me which just suggests that Mr Vare has never been involved in design or manufacture". Whilst this comment (and one other to which I was referred) may have been indelicately expressed, I do not consider that they evidence a wider flaw in Mr Toms' impartiality. I carefully watched and listened to Mr Toms give evidence. The vast bulk of his evidence was not challenged. Whilst he and Mr Vare disagreed on a comparatively small number of issues (as one would expect of opposing expert witnesses), I consider that he was an appropriately impartial expert who came to court to assist, giving his evidence fairly. On obviousness, Mr Toms

did occasionally stray into hindsight (I return to this below) – perhaps not unexpectedly given the Priority Date being nearly 20 years ago.

Ms Adams

15. In addition to the experts' reports, a confidential witness statement was given on behalf of Coram by Ms Elizabeth Adams, a Human Resources Manager at the company referred to in proceedings as Whale. A shortened version of Ms Adams' witness statement was admitted following the application I heard on 16 June 2026. Her witness statement recites some aspects of Mr Vare's employment at Whale and its termination and attaches some documents. She was not cross-examined. As I have set out above, Coram's attack on Mr Vare's impartiality fails. I therefore need say nothing more about Ms Adams' witness statement: I accept that she records accurately what happened in 2013. But Mr Vare, as I have said, explained his state of mind in more recent years, and I accept his explanation.

The Premium Pump and the Bluetooth Pump

16. A 32-page Product and Process Description (**PPD**) was provided for the allegedly infringing pumps. This was provided over a statement of truth signed by Conor Davie of Whale. Mr Davie was not cross-examined. I therefore accept the PPD as an accurate description of the two allegedly infringing pumps. Much of the PPD described features of the two pumps which were not in issue in these proceedings (such as gullies, sensors etc) so I do not set out the full PPD here. Rather, relevantly, the PPD provided:

Premium Pump

- i) “**Backplate** – the Backplate is the part of the Premium Pump which is affixed to the wall, onto which the other components are in turn affixed when installing the Premium Pump. As currently sold, the Premium Pump kit comes with the pump pre-screwed onto and the transformer pre-clipped onto the Backplate for ease of installation. The Backplate provides a stable, flat surface onto which the Pump and Premium Transformer are mounted. As illustrated by Figure 9 below, the Backplate contains pre-drilled holes, indents and clip brackets to assist with the mounting of the various components in the correct position(s)... The Backplate is also designed to stay in place once installed. Once the Backplate is securely screwed to the wall, the Pump and Premium Transformer can be separately affixed onto it. This arrangement also allows components to be removed (by unscrewing and/or unclipping) individually for any repairs/servicing without having to unscrew everything from the wall itself (which prevents the screw holes from becoming stripped or weakened over time)...

Photographs of the Backplate are shown below in Figures 9 and 10 and images of the Backplate from the Premium Pump Installation Guidelines are shown below in Figures 11, 12 and 13[omitted].



Figure 9: Photograph of the Backplate without any other components affixed.



Figure 10: Photograph of the Backplate with the Pump and Premium Transformer affixed.

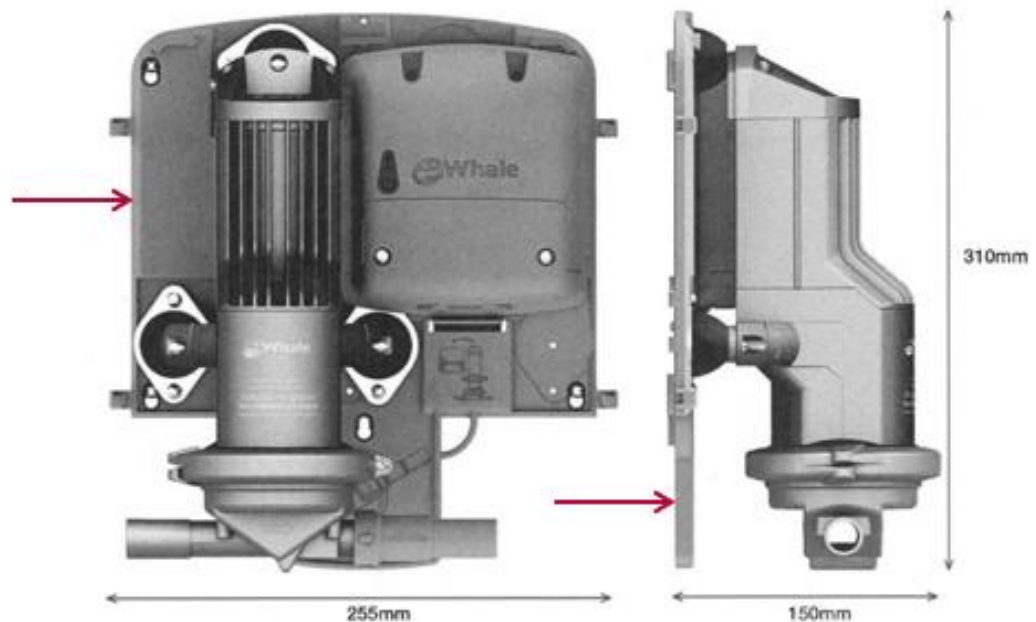


Figure 11: Front and side profiles of the Backplate, shown with Pump and Premium Transformer affixed.

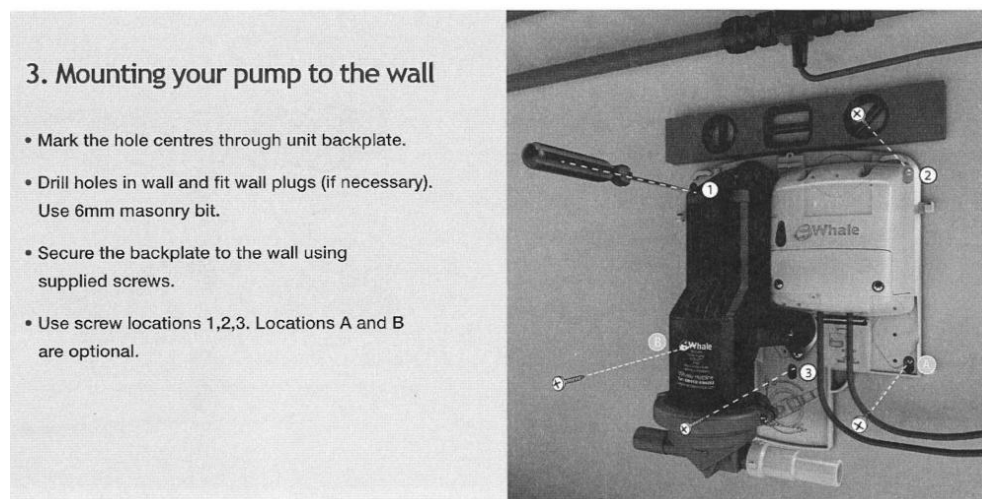


Figure 12: Instructions for mounting the Backplate to the wall from page 9 of the Premium Pump Installation Guidelines.”

- ii) **“Premium Cover** – this is an optional component. The Premium Cover is a hard plastic shell which covers the entire Backplate and affixed Premium Transformer and Pump once installed. It is not a mandatory component of the Premium Pump and the Premium Pump Installation Guidelines provides guidance as to when users may and may not wish to install the Premium Cover.

The Premium Pump Installation Guidelines read: *“The front cover [of these Installation Guidelines] shows the product installation in an apartment with the components in a concealed access. Assess your installation prior to fitting to ensure that the unit will be situated in an accessible location. Typical installations would have these components*

in an adjacent cupboard i.e. airing cupboard or in a false wall with an access panel. Do not fit the pump cover in these locations”.

This clarification that the Premium Cover is an optional component was added to the Premium Pump Installation Guidelines to more easily enable access to the Pump and Premium Transformer when servicing. Some local authorities prefer the Pump to be more easily accessible in the bathroom, by having the unit visible within the bathroom with the cover in place, rather than in an airing cupboard or in a false wall. In these situations, the cover is used for aesthetic reasons and to restrict access to the end-user / tenant.

If the Premium Cover is to be installed, it is not attached to the backplate (and does not touch the backplate) as shown in Figure 31 below. It is screwed separately to the wall as shown in Figure 32 below, and covers the backplate and components on it.

The Premium Cover itself is not watertight. As illustrated by the side-angle of the Premium Cover shown in figure 30 below, it includes two openings (one on either side) to allow for the pipework to enter the Premium Cover for the purpose of connecting to the Pump inlet and Valve...

Photographs of the Premium Cover are shown below in Figures 30 and 31 and imagery of the Premium Cover from the Premium Pump Installation Guidelines is shown below in Figure 32.



Figure 30: Photographs of the Premium Cover next to and then positioned over the Backplate etc. as it would be if secured to the wall in circumstances where the Premium Cover is to be installed.



Figure 31: Photographs of the Backplate inside of the Premium Cover to illustrate that the Premium Cover sits entirely over the Backplate without touching it.

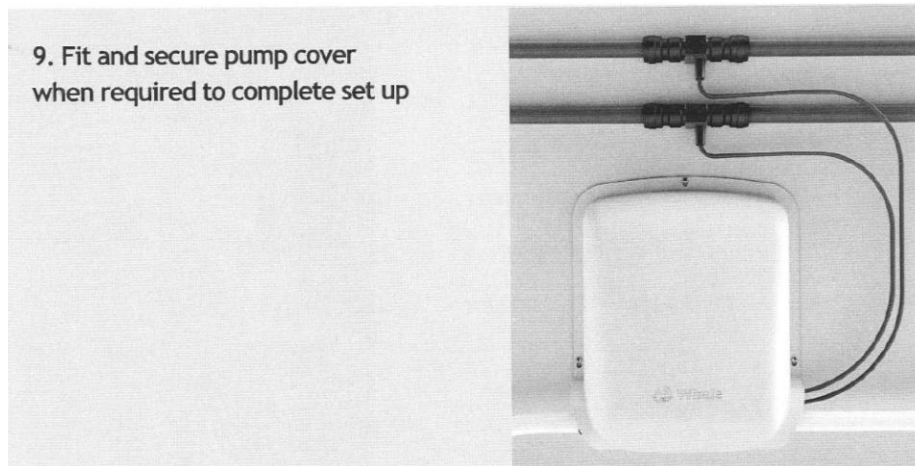


Figure 32: Instructions for fitting and securing the Premium Cover (when required) from page 12 of the Premium Pump Installation Guidelines.

Bluetooth Pump

- iii) **Backplate** – the Backplate provided in the Bluetooth Pump kit is identical to the Backplate provided in the Premium Pump kit.
- iv) **Bluetooth Cover** – similar to the Premium Cover, the Bluetooth Cover is an optional and aesthetic component. It is a hard plastic shell which, when installed, sits over the Backplate, Pump and Bluetooth Transformer. It is not a mandatory component of the Bluetooth Pump and the Bluetooth Pump Installation Guidelines provides guidance as to when users may and may not wish to install the Bluetooth Cover.

The Bluetooth Pump Installation Guidelines read: “*The front cover [of these Installation Guidelines] shows the product installation in an apartment with the components in a concealed access. Assess your installation prior to fitting to ensure that the unit will be situated in an accessible location. Typical installations would have these components in an adjacent cupboard i.e. airing cupboard or in a false wall with an access panel. Do not fit the pump cover in these locations.*”

The Bluetooth Cover is smaller in size than the Premium Cover, see Figure 38. As explained above, this is due to the Pump sitting closer to the Backplate in the Bluetooth Pump kit.

The Bluetooth Cover is installed by slotting on to the Backplate (as opposed to being screwed separately to the wall) as shown in Figures 37 and 38 below. Notwithstanding the different installation mechanism, the Bluetooth Cover is also not itself watertight. As illustrated by the side-angle of the Bluetooth Cover shown in figure 37 below, it includes two openings (one on either side) to allow for the pipework to enter the Bluetooth Cover for the purpose of connecting to the Pump inlet and Valve.

Photographs of the Bluetooth Cover are shown below in Figure 37 and imagery of the Bluetooth Cover from the Bluetooth Pump Installation Guidelines is shown below in Figure 38, including side-by-side comparisons of the Bluetooth Cover and Premium Cover.



Figure 37: photographs of the Bluetooth Cover next to and then positioned over the Backplate etc. and close-ups of the sliding mechanism by which the Bluetooth Cover attaches to the Backplate where the Bluetooth Cover is to be installed.

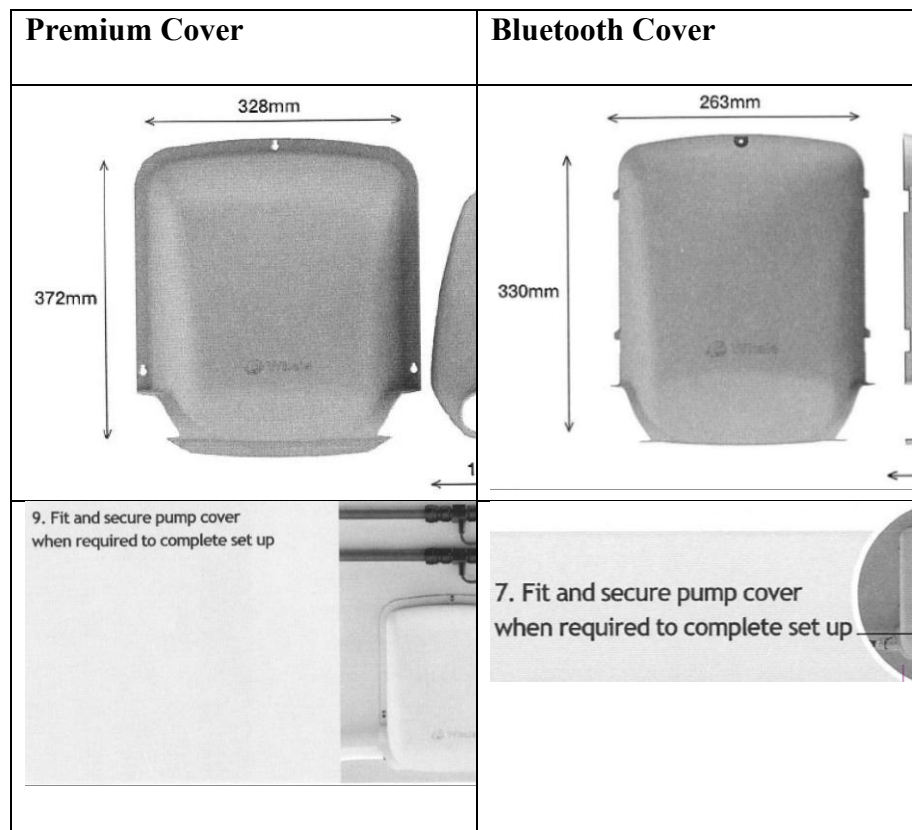


Figure 38: measurements and instructions for fitting and securing the respective covers (when required) from the respective Installation Guidelines.

The Law

17. There was no disagreement as to the law I should apply. I set out the relevant principles taken from the case law as necessary below.

The Patent

18. The Patent was filed on 30 April 2007 and claims a Priority Date of 17 February 2007. Thus, it will expire early next year.
19. The Patent relates to an issue well known as at the Priority Date – the need with shower-waste pumps to protect the electrical elements from water. An early solution was the “pump in a box”, an all-in-one unit in which the pump and other components were sealed against potential sources of water ingress (Quantum is a pump in a box product). That, however, did not deal with the situation where the pump itself leaked. As the Patent explains:
- “The problem with such prior art arrangements is that, should the pump leak, the water-tightly sealed box can fill with water. This leads to direct contact with the electrically energised control circuitry”.
20. It was accepted that the Patent provides an improvement over these products (although Coram said the improvement was obvious) by making a relatively simple arrangement of components:

“This is a known problem which has not heretofore been addressed, and the present invention seeks to provide a solution.”

21. Further, DLP’s counsel averred that a benefit of the Patent was that it “allow[s] convenient simultaneous installation of the pump and its associated electronics. It is not necessary for the components to be obtained separately and connected together and installed separately. They can be supplied in one convenient package as a single unit, and they can be purchased and used in that way”.
22. The Patent discusses specific embodiments of the invention “by way of example”, together with various figures, which are reproduced below as necessary.
23. Claim 1 is as follows (the integer breakdown having been adopted by both parties):

1	An electric shower-waste pump and control unit for pumping run-off shower water from a waste outlet to a drain, the unit comprising
1.1	a housing having a first chamber
1.2	and a separate second chamber defined by a continuous wall provided within the first chamber, which is water-tightly sealable
1.3	a removable non-watertight housing cover for closing the housing whilst permitting drainage within and through the first chamber
1.4	an electric pump provided in the first chamber
1.5	electronic control circuitry provided in the second chamber,
1.6	and a removable second chamber cover for water-tightly sealing the second chamber against ingress of water leakage from the first chamber thereby liquidly isolating the electronic control circuitry from its associated electric shower-waste pump.

24. Amendments, described by DLP’s counsel as “modest”, have been proposed to Claim 1 as follows:

1	An electric shower-waste pump and control unit for pumping run-off shower water from a waste outlet to a drain, the unit comprising
1.1	a housing having a first chamber
1.2	and a separate second chamber defined by a continuous wall provided within the first chamber, which is water-tightly sealable
1.3	a removable non-watertight housing cover for closing the housing whilst permitting drainage within and through the first chamber

1.4A	an electric pump provided in the first chamber <u>and not in the second chamber</u>
1.5	electronic control circuitry provided in the second chamber,
1.6A	and a removable second chamber cover <u>between the first and second chambers</u> for water-tightly sealing the second chamber against ingress of water leakage from the first chamber thereby liquidly isolating the electronic control circuitry from its associated electric shower-waste pump.

25. Claims 2, 4, 5 and 7 read as follows:

2	An electric shower-waste pump and control unit as claimed in claim 1, further comprising
2.1	an access opening for operating the electronic control circuitry without removal of the second chamber cover, and
2.2	an access cover for watertightly closing the access opening.

4	An electric shower-waste pump and control unit as claimed in claim 2, wherein
4.1	the access cover is a flexible plastics membrane

5	An electric shower-waste pump and control unit as claimed in claim 4, wherein
5.1	the access cover is nonremovable.

7	An electric shower-waste pump and control unit as claimed in any one of claims 2 to 5, wherein
7.1	the access cover is formed in a wall of the second chamber, spaced from the second chamber cover.

The Skilled Addressee and the Common General Knowledge

26. To the extent there remained at the end of the trial any difference between the parties on the skilled addressee, it does not matter. In my judgment, the skilled addressee is “a designer of shower-waste pump systems”.
27. It was common ground that the skilled addressee would know about various existing shower-waste pump systems. The following agreed CGK was submitted after the close of the trial (I have amended it to adopt the definitions already set out above):

“This joint statement sets out a narrative summary of what has been agreed to be CGK as between the parties. The disputed elements of the CGK will be addressed in skeleton arguments.

The skilled addressee of the Patent is a designer of shower waste pump systems, who may work as part of a team. The skilled addressee would have gained a general understanding of the mechanics, safety, design and control of shower waste pump systems through practical experience.

A shower-waste pump is used to remove shower waste water in situations where that water cannot be drained away by gravity, for example because it is not possible to dig below a shower tray or where the main drain connection is at a higher level than the shower tray.

The key components of a shower-waste pump system at the Priority Date were:

- A pump, connected (via pipework) on one side to the location where shower water collected (e.g. a shower tray) and on the other side to a soil stack or pipework from which the water could drain away by gravity. Diaphragm pumps were most common, but impeller pumps (such as the Phlexiflow impeller pump made by Nicholls & Clark) were also in use.
- Electrical/electronic components associated with the pump, typically including:
 - o A power supply. Typically, this would take an AC mains electricity supply and produce a lower DC voltage required by the pump.
 - o A pump control system. Early systems had a manual switch to allow the user to turn the pump on and off, but by the Priority Date it was routine for flow-switches to be included to detect when water was flowing to the shower and needed to be removed from the shower tray or gully. This enabled the pump to be automatically switched on and off as required without user intervention.

By the Priority Date shower waste pump systems had been available for many years and there were various products on the market. The Skilled Addressee would be aware of available products and their general features (and could, if they wished, find out detailed information about them by referring to manuals or obtaining samples). Commercially-available products at the Priority Date included:

- The “Gulper” and “Smoothflow” products made by Whale.
- The “Sanishower” and “Saniplus” products made by Saniflo.
- The “Archimedes 4” product made by AKW.

One category of product which the Skilled Addressee would have been aware of is referred to as “pump in a box” (of which the Quantum product is an example), in which pump electronics and control circuitry were contained together within a box which protected them from water. Other pump products had a dedicated cover for the pump alone, which could be made *e.g.* from injection-moulded plastic.

The Skilled Addressee would be aware of the existence of relevant standards and regulatory requirements, and would be able to refer to the relevant documentation when required, including parts of BS 7671:2001 (Requirements for Electrical Installations; 16th Edition), the UK standard for electrical wiring and installations, including:

- The division of a bathroom into “Bathroom Zones” according to wetness.
- Ingress Protection (IP) ratings, which concern how well equipment is to withstand different forms of contact with water.

The Skilled Addressee would be able to design appropriate IP rated enclosures for electrical equipment if necessary. Use of cable glands was a known way of assisting with water-proofing and maintaining IP-ratings.

The Skilled Addressee would be able to obtain relevant components from component suppliers (of which RS Components is an example), and would know where to obtain copies of such suppliers’ catalogues if they were looking for a particular type of component.”

28. DLP averred that that statement encapsulated all the CGK relevant to the issues before the Court. Coram submitted that there were additional elements of CGK, including that boxing-in of the pump and transformer together was CGK. Mr Toms and Mr Vare both recognised that this was done prior to the Priority Date, and I accept that it was CGK.
29. Coram further submitted that the following were CGK:
 - i) That injection moulding as a production technique would be known to the skilled addressee;
 - ii) That redesigning a circuit board was an option, albeit not an inexpensive one; and

- iii) Membrane switches.
30. Given my findings, nothing turns on these additions to the CGK, but, in case I am wrong in that, I would have found that these were within the CGK. Coram's counsel having set them out, I invited DLP's counsel to disagree, and he did not.
31. I add for completeness that the market in the UK for these sorts of units is comparatively small. As a waste-water solution, they are noisy, unattractive and prone to technical issues. A gravity fed shower drain is preferable, such that shower-waste pump units only tend to be installed when a gravity fed shower drain is not possible. That will be rarely. Much of the evidence before me concerned the renovation of local authority housing basement flats where a walk-in shower was installed in place of a bath (for tenants with mobility issues). It was and is thus a small market, not driven by technical innovation or high prices.

Construction of the Patent

32. There was no disagreement between the parties on the principles to be applied in construing the Patent. These were explained by Jacob LJ in *Virgin Atlantic Airways v Premium Aircraft Interiors* [2010] RPC 8 at [5]. The exercise is a purposive one: *Icescape Limited v Ice-World International BV & Ors* [2018] EWCA Civ 2219 at [60] per Kitchen LJ (as he then was). The Patent must be construed in context, and as a whole so as to give a sensible consistent meaning to every part of it. The specification and the claim are part of the same document and should be construed as such: *Brugger v Medic-Aid* [1996] RPC 635 at 642.
33. Neither party suggested that any of the terms in the Patent had a meaning other than its ordinary English meaning – no term was a term of art. Permission was given for the experts to provide evidence only on validity and the proposed amendments, not on infringement. I need to construe the Patent for the purposes of infringement, and the proper course is to construe the Patent before considering either validity or infringement. Nevertheless, on construction of the Patent, I have taken into account the expert evidence, because the construction for the purposes of infringement has to be the same as for validity. That said, I did not understand either expert to opine that the words in the Patent should be given anything other than their ordinary English meaning, other than an element of purposive construction relevant to the removable housing cover, which must be removable to allow access to the components within the unit – but that is also common sense. There was no suggestion on either side that any of the terms in the Patent had changed meaning between 2007 and now. In short, both parties agreed that I could construe the Patent giving the words their current ordinary English meaning asking what does the skilled addressee, in light of the CGK, understand the words of the claims to mean, noting the purpose of the removable housing cover (to allow access to the components within the unit).

Unit

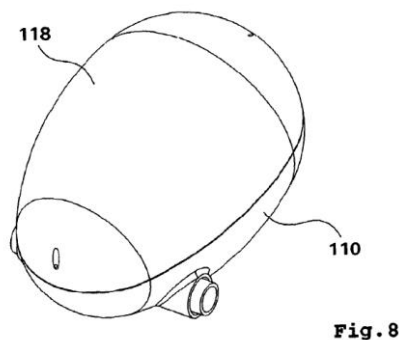
34. The claim is to a product, namely “an electric shower-waste pump and control unit”. There was a dispute over the meaning of the word “unit”. DLP submitted

that “unit” serves to indicate that the product is a single, complete, self-contained product comprising the various components referred to in integers 1.1 to 1.6. Coram disagreed, submitting that the Patent does not require the “unit” to be a single, complete or self-contained product – it need only comprise the various components referred to in integers 1.1 to 1.6. In my judgment, the meaning of “unit” in the Patent would be clear to the skilled addressee in light of the CGK, as it was clear to Mr Toms in his cross-examination: in the context of the Patent, I accept DLP’s submission on the meaning of unit. Whilst a unit can be made from various components, it is a single, complete or self-contained “shower-waste pump and control unit” to which the Patent refers. It is more than the sum of integers 1.1 to 1.6, because those integers could be found in a collection of features which are not a “shower-waste pump and control unit”.

Integer 1.1: “A housing having a first chamber”

Integer 1.3: “a removable non-watertight housing cover for closing the housing”

35. To fall within the Patent, the unit is required to have both a housing (which contains a first and second chamber) and a removable non-watertight housing cover for closing the housing. The parties were not far apart on the meaning of these words (although they did apply them very differently to the allegedly infringing products). In my judgment, a housing is a casing which houses other things – that is, it surrounds and protects them. In the Patent, the casing surrounds and protects a first chamber and a second chamber. Here, a chamber means an enclosed space. Thus, the Patent requires a casing (housing) which surrounds and protects two enclosed spaces – the first and second chambers. The second chamber is “defined by a continuous wall provided within the first chamber, which is water-tightly sealable”.
36. The Patent also refers to a housing cover for closing the housing, which is said to be removable and non-watertight. The housing cover allows access to the internal components of the unit. The Patent is not specific about the size of the housing cover compared to the size of the housing – in Specific Embodiment 1, the housing (110) is effectively the lower half of an egg, with the housing cover (118) forming the other half of the egg:



The housing cover does need to be removable and non-watertight for the reasons set out above. There was a debate before me as to whether the housing cover needed to connect with the housing in any way. Coram argued that “removable

non-watertight housing cover for closing the housing” must mean that the housing cover connects with the housing, in short because it must be “removable” from the housing, and must be for “closing the housing”. Coram pointed out that “removable” is used repeatedly in the Patent, each time with its ordinary English meaning. Further, Coram submitted that each of the embodiments of the Patent shows that the housing cover is a removable piece that leaves a three-dimensional body in which the pump, chambers etc. are present. DLP, on the other hand, submitted that the Patent does not seek to limit how the housing and the housing cover are to be fixed into position relative to one another. DLP averred that a direct attachment of the housing cover to the housing is within the scope of the Claims, but submitted that an indirect attachment, such as both the housing and the housing cover being attached to a wall, but not touching, would suffice. I disagree. Giving “removable” cover for “closing the housing” its ordinary English meaning (in light of the CGK), it is clear that the Patent requires the housing cover and the housing to connect directly. There is no requirement for a latch or a click – a lid covers a saucepan – but to close the housing, the two must touch, even if they don’t seal, or “water-tightly” seal (indeed, the Patent requires that they not “water-tightly” seal).

Integer 1.6: “a removable second chamber cover for water-tightly sealing the second chamber against ingress of water leakage from the first chamber thereby liquidly isolating the electronic control circuitry from its associated electric shower-waste pump”

37. There is an express requirement for the second chamber to be water-tightly sealable. This prevents the electrical components from coming into contact with any water present in the first chamber. The first chamber is not water-tightly sealed. This is so any leakage from the pump can exit the unit.

Infringement

38. DLP’s skeleton argument raised an initial issue concerning the fact that the Premium Pump and the Bluetooth Pump are sold in kit form (rather than pre-assembled). Further, as is also clear from the PPD, some aspects of the Premium Pump and Bluetooth Pump are optional and advised against in certain installation circumstances (such as not needing the plastic cover if installed in a cupboard). These issues were not pleaded to by Coram, and I was not addressed on them at trial. In any event, they do not matter.
39. As a further preliminary issue, there was some disagreement as to whether there were differences between the Premium Pump and the Bluetooth Pump, and whether any differences mattered. Clearly, as the PPD sets out, there are differences, including, for example, how the two units are attached to the wall. DLP ran a technical pleading point that, Coram only having provided a bare denial of the allegation of identity between the two pumps, I should accept that Coram has admitted the allegation that they are, in fact, identical. I disagree. Clearly, in circumstances where Coram has denied infringement and denied that the two allegedly infringing pumps are the same, and further, has expressly provided a PPD (supported by a statement of truth on which its deponent was not cross-examined) that sets out those differences, it would be unreal for the Court to decide the case on the basis that the two pumps are identical. The

primary relevant difference is that the cover of the Bluetooth Pump clips onto the backplate (which is connected to the wall), rather than being separately hung on the wall (as is the case with the Premium Pump).

40. I turn now to the disputed integers for the purposes of infringement. I will refer throughout to the Premium Pump, referring only to the Bluetooth Pump where it matters in relation to the connection or otherwise of the cover to the backplate.

Integers 1.1 (housing) and 1.3 (housing cover)

41. As set out in the PPD, the Premium Pump has a backplate, shown in the photographs excerpted above from the PPD (see for example Figure 9 and Figure 31). This is flat, plastic and affixed to the wall. The pump and transformer are affixed to the backplate. DLP submitted that the backplate corresponds to the “housing cover” of integer 1.3. The rigid plastic Premium Cover shown in the PPD (see for example Figure 30 and Figure 38) is said by DLP to correspond to the “housing” in integer 1.1. It is said that, together, the Premium Cover (“housing”) and the backplate (“housing cover”) enclose and protect the other components of the Premium Pump. To do so, DLP relies on a purposive construction of the claims, submitting that, if the egg-shaped bowl shown in an embodiment of the Patent (and excerpted above) can be the housing, even if it does not readily show a first chamber until the housing cover is added, then the Patent also covers variations. Thus, on a purposive construction, in light of the CGK, DLP submits that the skilled addressee would understand the Premium Cover of the Premium Pump to be a housing, and the backplate to be a “housing cover”.
42. Counsel for Coram submitted as follows in closing arguments:
- “This is probably the point at the heart of construction on the infringement analysis. [DLP]’s pleaded case is, surprisingly, that the thing screwed to the wall that you cannot get to is the removable housing cover for closing the housing.”
43. In my judgment, DLP’s assessment of the Premium Pump is flawed, and I reject it for the following reasons:
- i) The skilled addressee taking into account purposive construction would not, in my judgment, describe the flat backplate as “a removable non-watertight housing cover for closing the housing”. The parties were agreed that the purpose of the removable housing cover in the Patent was to provide access to the components within the unit. This is also set out in the first and second embodiments of the Patent. The backplate does not do that. It is not “removable” in the sense that, in context, the skilled addressee would understand that word, because it is affixed to the wall. The housing can be removed from the wall allowing access to the internal components of the unit, but that is not what the Patent says. Coram’s counsel also noted that, if the Premium Cover is removed, the pump and the electronics are still connected to the backplate (said to be the “housing cover” – so it cannot be said that removal of the housing cover is to provide access to the workings of the unit). Rather, what is

said to be the housing cover remains attached to the second watertight chamber which houses the electrics. In my judgment, DLP's proposed construction is an unnatural reading of the Patent, and I reject it.

- ii) Further, as set out in the PPD, the backplate of the Premium Pump is not attached to the Premium Cover – rather, the Premium Cover attaches to the same wall to which the backplate attaches. The two do not touch and there are large gaps (as seen in Figure 31). It therefore cannot be said to “close” the “housing”. Some of the “closing” is done by the wall to which the unit is attached, and the wall is not part of the unit. DLP's counsel submitted that that does not matter – the Patent does not say that the housing cover must “close entirely” the housing. Indeed, he submitted that the requirement that the closure not be watertight supported his position. I agree to an extent – entire closing is not required. But closing is. The Patent, as I have found, requires a unit. It should be self-contained, as DLP averred. If part of the closing of the chamber is effected by the wall to which both the backplate and the Premium Cover are attached, then that does not, in my judgment, fall within the integer providing that the *cover* closes the housing.
 - iii) The position with respect to the Bluetooth Pump is similar. My finding in relation to the Premium Pump's backplate not touching the Premium Cover is an additional reason why the Premium Pump does not fall within the claims of the Patent, but the Bluetooth Pump's connection at that point is insufficient to bring it within the scope of the Patent: the backplate on the Bluetooth Pump is also not a “housing cover” within the terms of the Patent.
44. Therefore, DLP's infringement case fails. As all the remaining Selected Claims are dependent on claim 1, I do not need to say anything more about them.
45. There was a brief discussion at trial of DLP amending its case to submit that the Premium Cover is the housing cover and the backplate is the housing. Even if (a) such an application were to have been made (it was not) and (b) I were to allow such a pleading amendment at that very late stage (which I would not), DLP's infringement case would still fail for the following reasons:
- i) The backplate, a flat plate for attaching the pump to the wall, does not constitute a “housing” and would not be understood by the skilled addressee to do so. I have kept purposive construction in mind – but the backplate cannot be said to “house” anything. It does not surround and protect anything. It falls outside the definition of “housing” provided by DLP's counsel in his skeleton argument, and closing submissions.
 - ii) DLP's counsel urged me to take the housing and the housing cover together – and that in the Premium Pump, together, the backplate and the Premium Cover surround and protect the pump and other components. But in the Patent, the task of the housing cover is to close the housing whilst providing access to the internal components, rather than, in effect, to be the housing. There is an important difference in the roles the housing and the housing cover fulfil in the Patent, including on a

purposive construction, as well as giving the words their ordinary English meaning.

- iii) Nor could the backplate be said to be a “housing having a first chamber and a separate second chamber defined by a continuous wall provided within the first chamber, which is water-tightly sealable”. The backplate is a flat piece of plastic – it has no chambers. It has no “continuous wall provided within the first chamber” to define a second chamber. The backplate therefore does not surround and protect the other components of the unit, nor does it meet the other requirements of integers 1.1 and 1.3.
 - iv) The housing cover needs to close the housing (as I have found above) and in the Premium Pump it does not (requiring the wall to effect closure).
46. There was a further argument before me about the electronics. Integer 1.6 of the Claim provides for:

“a removable second chamber cover for water-tightly sealing the second chamber against ingress of water leakage from the first chamber thereby liquidly isolating the electronic control circuitry from its associated electric shower-waste pump.”

47. Coram’s submission was that water leakage from the pump in the Premium Pump would simply flow out the bottom of the unit, and not impinge on the second chamber, which therefore did not need to be watertightly sealable. This rather ignores the problem of spray from the pump (or the shower), which was CGK, including because of the skilled addressee’s knowledge of bathroom zones and the regulations on where electronics can be placed in a bathroom. Given my findings above, it does not matter, but if I am wrong in that, I would have found that the Patent requires the second chamber to be watertightly sealable so as to isolate the electronic control circuitry from water, including spray.

Invalidity – Anticipation/Lack of Novelty

48. Coram dropped its novelty attack during DLP’s counsel’s closing argument.

Invalidity - Obviousness

The Law

49. Again, the parties were agreed on the legal principles I should apply. Essentially, the question for the Court is whether it would require an inventive step to bridge the gap between what is disclosed to the skilled addressee by the prior art document in question (read in isolation from any other prior art citation, without any preconceived notions as to what it will contain or whether it will be useful, and with the background CGK as it would have been known to them at the priority date) and the relevant claim in the patent. That analysis is fact

dependent. As Kitchen J (as he then was) said in *Generics (UK) Limited v H Lundbeck* [2007] EWHC 1040 (Pat) at [74]:

“The question of obviousness must be considered on the facts of each case. The court must consider the weight to be attached to any particular factor in the light of all the relevant circumstances. These may include such matters as the motive to find a solution to the problem the patent addresses, the number and extent of the possible avenues of research, the effort involved in pursuing them and the expectation of success.”

50. The longstanding approach of the English courts has been to follow the structured approach set out in *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588 at [23]:

“(1) (a) Identify the notional 'person skilled in the art';

(b) Identify the relevant common general knowledge of that person;

(2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;

(3) Identify what, if any, differences exist between the matter cited as forming part of the 'state of the art' and the inventive concept of the claim or the claim as construed;

(4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?”

51. Coram submitted that a sensible way to proceed where there is no inventive concept is to construe the relevant claims and compare them to the disclosures of the prior art: *Clearswift Limited v Glasswall (IP) Limited* [2018] EWHC 2442 (Pat) at [92] relying on *Pozzoli* at [19].

52. I was reminded of Jacob LJ’s comments in *Technip France SA’s Patent* [2004] EWCA Civ 381 at [122]:

“The question 'why was it not done before' is always a powerful consideration when considering obviousness, particularly when all the components of a combination have been long and widely known.”

53. It does not follow that just because something was not done it must not have been obvious to do it – there may have been other reasons as to why it was not done.

54. I was also reminded of the dangers of hindsight. As Oliver LJ (as he then was) explained in *Windsurfing International Inc v Tabur Marine (Great Britain) Ltd* [1985] RPC 59 at 71 the question of obviousness:

“... is one which has to be answered, not by looking with the benefit of hindsight at what is known now and what was known at the priority date and asking whether the former flows naturally and obviously from the latter, but by hypothesising what would have been obvious at the priority date to a person skilled in the art to which the patent in suit relates, who is assumed to have access to what was known of the art in the United Kingdom immediately before the priority date.”

55. As Meade J (as he then was) observed in *Fisher & Paykel Healthcare Limited v Flexicare Medical Limited & Anor* [2020] EWHC 3282 (Pat) at [157], avoidance of hindsight is a particularly acute concern in the case of relatively simple inventions.

56. I was also reminded that the skilled addressee is not bound to embark on any particular, or indeed any course of action, simply because he or she has read a prior art document. As HHJ Birss QC (as he then was) held in *Vernacare Limited v Environmental Pulp Products Limited* [2012] EWPCC 41 at [41]:

“... As a matter of principle, the skilled person reads any given piece of prior art with interest. However, as a matter of principle again, once they have done so, there is nothing to say as a matter of law that the skilled person is not entitled to say having read it with interest, ‘I have read it with interest, but I am not interested.’ The context is vital. ...”

57. Finally, I was reminded that obviousness is a question of technical obviousness – it does not matter whether or not it would have appeared commercially worthwhile to exploit the thing that is technically obvious: *Hallen Company v Brabantia (UK) Limited* [1991] RPC 195 at 213 per Slade LJ.

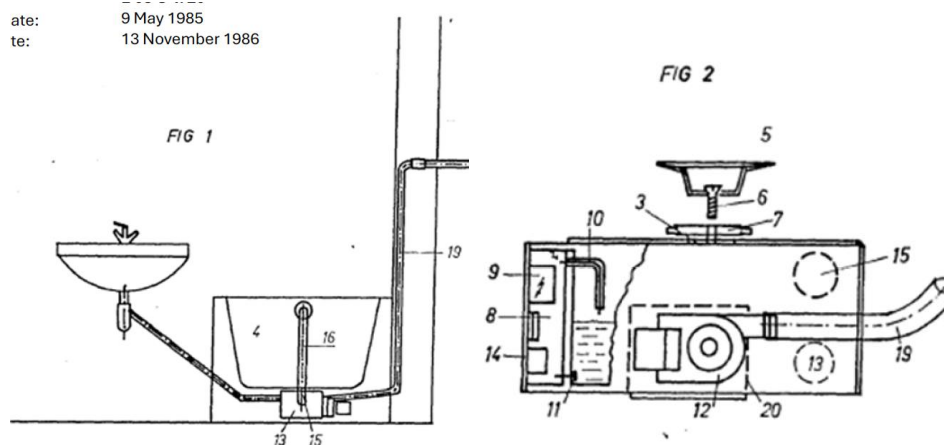
58. I have kept in mind the many other cases to which I was referred, although, as I have said, there was no disagreement between the parties as to the law I should apply.

59. One issue that arose in relation only to Quantum was that, given the simplicity of the invention in the Patent, why hadn’t that solution been devised earlier? This was expressly pleaded by DLP, but Coram did not file a Reply to the Defence to Counterclaim, so Coram did not plead to the allegation. DLP raised the point again in Mr Vare’s evidence explaining that even large entities with large product development teams did not innovate in this way. Mr Toms’ written evidence did not deal with the issue. In his oral evidence, he said that the market for products similar to Quantum was small – and I accept that evidence. This was (and is) a small market, not driven by technological innovation or high prices. There were costs to developing new housing for pumps, in circumstances where, as I have found, many of the customers for these installations were local authorities renovating basement flats for tenants who required their bath

replaced with a walk-in shower for mobility reasons. In that context, I do not consider that I can assume that, just because it was not done, it therefore was not obvious.

Grumbach

60. As set out above, Grumbach is a German patent application dealing with bath drains. It comprises a short abstract followed by three claims, a brief description and four figures. The disclosure is exemplified in figures 1 and 2, shown below:



61. The pump unit (13) is suspended beneath a bathtub. Water from the bath drains into a water tank. A pump then pumps water out of the tank and into the sewer. The pump has a “guard” (20) and the electronics (9) are in the “control section” (8). The control section is closed with a cover (14). Figure 1 shows the unit installed beneath a bath against a wall and with side panelling. Although its novelty attack was later withdrawn, Coram submitted that the integers of Claim 1 of the Patent are met as follows:
- i) First, as shown in Figure 1, the housing having a first chamber is formed by the base of the underside of the bath, the walls and the floor; and
 - ii) Second, as shown in Figure 2, the housing having a first chamber is disclosed by the complete outside walls of the device with the first chamber being the volume enclosed by those walls.
62. I will refer to these as **Figure 1 Disclosure** and **Figure 2 Disclosure**. Whilst I was addressed on both, Coram’s counsel focussed his submissions on Figure 1 Disclosure.
63. As I have already noted, Coram argued, but then did not press, its case on novelty. But as it ran its case on obviousness on the basis of those features of the Patent which were found to be novel over Grumbach, I need briefly to deal with those arguments. There was much debate before me about regulations for the installation of bathtubs, and whether sealant would be used on any access chamber. None of that matters – any argument that the Figure 1 Disclosure in Grumbach anticipates the Patent falls at the first hurdle that it is not a “unit” as I have construed the Patent. Further, there is no “housing” – in my judgment,

the combination of the underside of the bath together with the walls and floors etc cannot be considered “housing” as its purpose is not to surround and protect the other components. Nor is there a removable housing cover – such a finding requires the skilled addressee to read in regulations on bath access, and, in any event, a removable panel on the side of the bath is not a “housing cover for closing the housing”, because there is no relevant housing for the purposes of the Patent.

64. The position with respect to the Figure 2 Disclosure in Grumbach is more nuanced. The parties were agreed that the product shown in Figure 2 was a unit. However, the pump is walled off from the large central water tank, meaning that the first chamber does not contain the pump and the second chamber. The second chamber contains a water tank. There is also no “continuous wall provided within the first chamber, which is water-tightly sealable”. Further, there is no “removable non-watertight housing cover for closing the housing whilst permitting drainage within and through the first chamber” – the purpose of the housing cover is to provide access to the pump which cannot be done in the Figure 2 Disclosure. The only way in which water gets out of the water tank is being pumped into the sewer.
65. For these reasons, had it been pressed, I would not have found the Patent to be anticipated by Grumbach.
66. Coram’s position was that for any feature found not to be disclosed by Grumbach, it would have been obvious to the skilled addressee to try it. However, neither expert considered Grumbach to be fertile ground for the skilled addressee – Mr Vare said the skilled addressee would not use Grumbach as a logical starting point for any further development and Mr Toms said that, because it has to be directly connected to the bath, that limits how useful it could be.
67. I have found that the Figure 1 Disclosure of Grumbach does not constitute a “unit”. Coram says that would have been obvious to try – “it is also technically obvious for the bath or shower tray, all panelling, and the pumping unit, to be supplied and fitted together”. This question was not put to the experts, so I need to form my own judgment. I disagree with Coram’s submission. For the Figure 1 Disclosure in Grumbach to form a first chamber with the relevant attributes, Coram needed to rely on at least one house wall to form the chamber. The wall is not provided as part of Coram’s suggested unit. This submission therefore fails and is sufficient to deal with the point in relation to the Figure 1 Disclosure in Grumbach.
68. The Figure 2 Disclosure faces the issue of requiring so many steps that the skilled addressee would not take Grumbach as a starting point – rather, the skilled addressee would look elsewhere, or just start from scratch. Even if the skilled addressee had started with the Figure 2 Disclosure in Grumbach, it would not be possible to reach an invention within the scope of the claims of the Patent without impermissible hindsight.

69. In case it matters, I would have found:
- i) That it would have been obvious to add a removable cover for the housing (in the nature of a panel in the wall of the bath installation) to provide access to the pump etc;
 - ii) That it would not have been obvious not to seal the bath fully in order to allow water egress from a leaking pump – the sealant around the base of an installed bath also serves to prevent water from running under the bath: that significant advantage would be lost were the sealant to be omitted; and
 - iii) It would have been obvious to make watertight the chamber containing the electrical controls.

Gontar

70. Gontar is a patent application titled “apparatus for draining a shower tray” published on 27 August 1997. Gontar is about enabling compatibility with existing shower trays and reducing noise. It addresses these issues by positioning sensors inside a pipe used to suck water from a sump – this can be done on new and existing shower installations.
71. Given the focus of Gontar, the experts accepted that the skilled addressee of the Patent would not be interested in Gontar’s Figure 1. Therefore, primarily, the discussion before me was in relation to Figures 2 and 3 of Gontar, which are shown here:

Figure 2

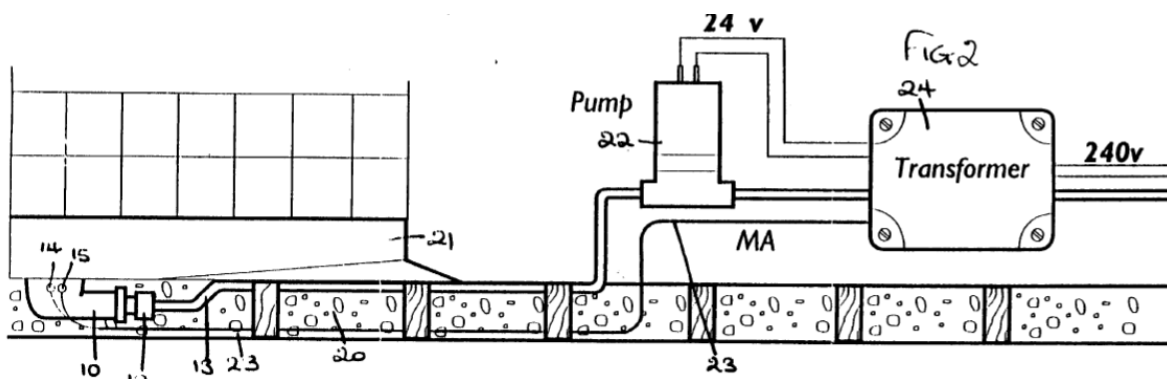
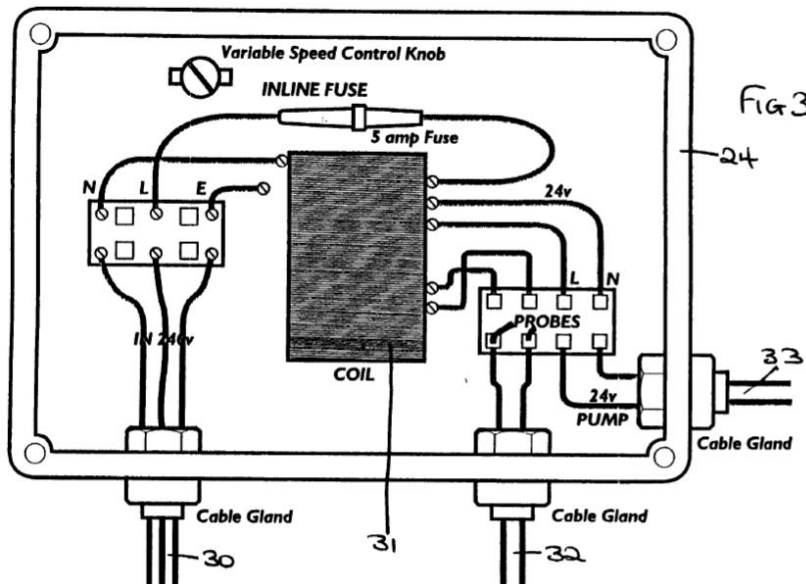


Figure 3



72. Coram relies on the right hand side of Figure 2, which shows a pump nearby a transformer. Coram also relies on Figure 3 because it shows a transformer box which is watertightly sealed, which the skilled addressee would understand from the use of cable glands to prevent water ingress around the cables.
73. Coram's case was that Gontar disclosed all the features of Claim 1 of the Patent except the "housing having a first chamber" of integer 1 and the "removable nonwatertight housing cover for closing the housing whilst permitting drainage within and through the first chamber" of integer 1.3. Coram submits that it would have been obvious to add the additional integers to Gontar to reach the invention of the Patent.
74. It is common ground that cosmetic covers for pumps were CGK and that fitting the pump in an adjacent cupboard was CGK.
75. Applying the *Pozzoli* test:
- (1) *Identify the notional skilled addressee and the CGK*
- i) I have already set out the skilled addressee and the CGK. Coram submitted that the following are particularly relevant:
- a) Pumps and transformers are permitted to be in the same place;
 - b) Transformers and pumps are installed in either boxing-in with an access cover or installed in vanity units together; and
 - c) Pumps were unattractive and so covering them was preferable;

(2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it and (3) Identify what, if any, differences exist between the matter cited as forming part of the 'state of the art' and the inventive concept of the claim or the claim as construed

- ii) Taking 2 and 3 together, as Coram's counsel invited me to do, Gontar does not disclose the housing of the first chamber nor the removable housing cover that closes the first chamber;

(4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

- iii) Coram submitted that the skilled addressee would be motivated by the desire to hide the pump and the transformer, and to locate them together: it was therefore obvious to put the pump and transformer together in a vanity unit or to box both in with a removable cover.

76. DLP submitted that Figure 2 does not teach the skilled addressee anything. Mr Toms confirmed under cross-examination that the features shown on the right-hand side of the drawing – the pump, the transformer in a waterproof enclosure, the wiring and pipework - were all well-known to the skilled addressee as part of the CGK. He also confirmed that only those features are relevant for present purposes. Thus, DLP submitted, the skilled addressee learns nothing from Gontar. Mr Toms agreed with that statement. This, DLP submitted, is on point with *Vernacare*, which I have cited above.
77. I accept DLP's submissions in relation to Gontar. In my judgment, all of the relevant features of Gontar fall within the CGK, and the skilled addressee viewing those features would not be moved to do anything. As HHJ Birss QC said in *Vernacare*, "I have read it with interest, but I am not interested." It would, in my judgment, be unfair to inventors to hold otherwise.
78. If I am wrong in that, then I would still not have invalidated the Patent on this basis because the boxing in which Coram suggested the skilled addressee would see as obvious does not form part of the "electric shower-waste pump and control unit". Whilst a vanity unit may, itself, be a unit, it is not, as Coram's counsel submitted, part of the "electric shower-waste pump and control unit" as I have construed the Patent. Similarly, unless it were obvious to the skilled addressee to provide the boxing-in as part of the pump and control unit, or to instruct its manufacture during installation, then that, too, would, in my judgment, fall outside the Patent.
79. The Patent is not obvious over Gontar.

Quantum

80. Quantum is a shower waste pump and controller unit, shown in the photograph below:



81. I was also provided with the instructions for operation, installation and commission. Quantum is shown in figure 3 of the Patent – the Patent records that such products were known at the Priority Date. Both experts considered Quantum to be part of the CGK.
82. Coram submitted that Quantum shows that the outer box is a housing, enclosing a first chamber. It is common ground that a separate second chamber, required by integer 1.2, is not disclosed (and therefore integers 1.5 and 1.6 are also not disclosed as these relate to the second chamber). Further, it is common ground that the cover of the outer box of Quantum is not “non-watertight” and that there is no clear and unmistakable disclosure of drainage being permitted, as required by integer 1.3. The cover is a removable housing cover for closing the housing. Thus, the key dispute in relation to Quantum was whether or not it would be obvious to adapt Quantum to enclose the transformer in a watertight second chamber with a lid, and then do away with the first chamber’s being watertight.
83. With Quantum, DLP submitted that the question of “why was it not done before” is particularly apposite. Quantum was a CGK product which had been available for many years prior to the Priority Date. Several companies were making them. Mr Toms’ evidence on this point was not particularly satisfactory

– he said that the designers of the Quantum product had not fully considered the pump leaking internally. That statement is hard to square with the CGK – pumps were known to leak, and the potentiality of water coming into contact with the electrics was a danger to which designers of these products were attuned. Further, Mr Toms’ evidence was that the skilled addressee on reviewing Quantum would first do away with the waterproofing but then add in another waterproofed box. Here, in my judgment, Mr Toms is employing hindsight, for that is not what the skilled addressee would be likely to do. Therefore, on this point, I prefer Mr Vare’s evidence – in my judgment, it was not obvious to develop the Quantum product in order to get to the claims of the Patent.

84. Applying the *Pozzoli* test:

(1) Identify the notional skilled addressee and the CGK

- i) I have already identified the skilled addressee and set out the CGK: of particular relevance are the following:
 - a) Pumps were known to leak;
 - b) Safety was therefore a concern when designing electric shower-waste pumps and control units – the electrics should not get wet; and
 - c) Making enclosures watertight to the level of submersion is more expensive than making them splash proof.

(2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it and (3) Identify what, if any, differences exist between the matter cited as forming part of the 'state of the art' and the inventive concept of the claim or the claim as construed

- ii) As I have noted, Quantum does not disclose the following:
 - a) integer 1.2 - “a separate second chamber defined by a continuous wall provided within the first chamber, which is water-tightly sealable”
 - b) integer 1.5 - which requires the electronic control circuitry to be in the second chamber
 - c) integer 1.6 - which requires a removable second chamber cover for water-tightly sealing the second chamber against ingress of water leakage from the first chamber thereby liquidly isolating the electronic control circuitry from its associated electric shower-waste pump
 - d) integer 1.3 - the housing cover Quantum discloses is not clearly and unambiguously non-watertight, and does not clearly and unambiguously permit drainage within and through the first chamber.

(4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?"

85. In my judgment, the skilled addressee is not able to bridge those gaps without hindsight – or, put another way, I reject Mr Toms’ evidence on this point as influenced by impermissible hindsight. Coram’s case requires the skilled addressee to take the watertight Quantum housing within which the electronic components were already contained and protected, and add a further watertight housing to contain and protect the electronic components – and then, having done that, make the original watertight housing non-watertight. In my judgment, the skilled addressee would not take those illogical steps.

The Proposed Amendments

86. Given my findings on invalidity, I do not need to discuss the proposed amendments. Neither side made lengthy submissions on them. I make only brief comments here. The Comptroller was asked for a view on the proposed amendments to claim 1 and did not find them objectionable.
87. DLP submitted that the question I need to ask myself is “will the feature be understood by the skilled addressee to be linked for technical reasons with another feature which has been omitted?” Coram submitted that the correct question to ask was whether the disclosure of the Patent as proposed to be amended goes beyond the clear and unmistakable disclosure of the application as filed, technically. If the amendments would add something not clearly or unambiguously disclosed by the Patent, then they are impermissible amendments.
88. Coram submitted that the proposed amendments clearly do add something beyond what the Patent discloses. However, Coram’s expert, Mr Toms, did not give any evidence on the amendments and did not respond to Mr Vare’s evidence on them.
89. Had I needed to do so, I would have allowed the amendments for the reasons given by the Comptroller.

Result

90. The Premium Pump and the Bluetooth Pump do not infringe the Patent. The Patent is not invalid for being obvious over Grumbach, Gontar or Quantum. The claim and counterclaim are therefore both dismissed.