

OPINION UNDER SECTION 74A

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| Patent | GB 2406328 |
| Proprietor(s) | IMI Cornelius (UK) Limited |
| Exclusive Licensee | |
| Requester | Dr Kathryn Naylor, on 7 November 2008 |
| Observer(s) | |
| Date Opinion issued | 4 February 2009 |

The request

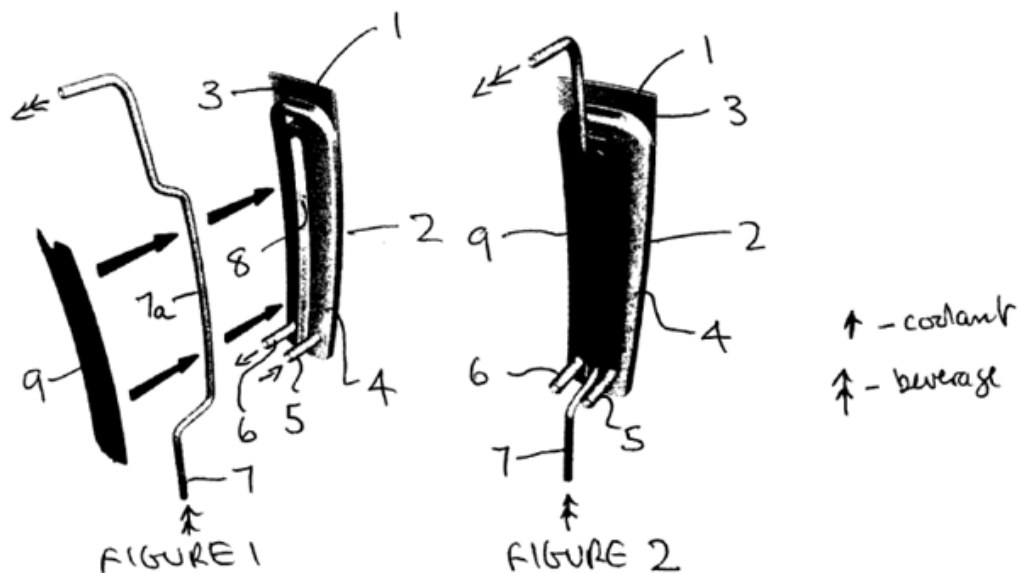
1. The comptroller has been requested to issue an opinion as to the validity of the claims of GB 2406328 (“the patent”) in the name of IMI Cornelius (“the patent proprietor”) in light of GB 2363191 A (“the document”). The request includes a detailed comparison of the features of the independent claims (numbered 1, 13 and 15) of the patent with the disclosure in the document. The question of validity of the patent in light of the document does not appear to have been considered during any proceedings of the patent and as such I will proceed with the request.
2. The detailed comparison made in the request includes a number of comments which are based upon statements made by the patentee, or their agent, during prosecution of the patent prior to its grant. There is no legal authority which allows the use the prosecution history of a patent as an aid to claim construction (see paragraphs 27 to 30 of *Telsonic’s patent* [2004] RPC 38 and *Kirin-Amgen Inc v Hoechst Marion Roussel Ltd* [2005] RPC 9). This opinion will therefore proceed on the basis that meaning of the claims and their effect is discernible from the patent.

Observations

3. No observations have been filed in response to the request.

The patent

- I note that the patent was filed on 22 August 2003 without a claim for priority. The claims were filed later than the filing date but within the period prescribed for doing so. The patent was granted on 11 October 2006. According to the register of patents, it is still in force.
- The patent relates to an apparatus for dispensing beverages which includes a dispense head provided with a dispense tap for dispensing a beverage and with cooling means for creating condensation or ice on an external surface of the dispense head. The invention also includes a method of dispensing a beverage using the apparatus.
- The description is accompanied by two drawings (shown below) which show an exemplary embodiment of the invention in an exploded view (figure 1) and a perspective view (figure 2). The description indicates that these drawings relate to an exemplary dispense head (not shown) which is said to include a panel 1 in the form of a font to be mounted on a counter top such as a bar. The panel 1 has a front or outer surface 2 which in use faces the customer and a rear or inner surface 3 on the inside of the font. The inner surface 3 is provided with a chamber 4 having an inlet 5 and an outlet 6 for connection to supply and return lines (not shown) of a re-circulation loop for circulating a coolant, cooled in one or more remote coolers, through the chamber 4 as shown by the single headed arrows in Figure 1.



- A supply line (not shown) extends from a beverage keg to the vicinity of the dispense head and a branch line 7 extends from the supply line to a

dispense tap (not shown). As shown, the branch line 7 has a portion 7a that is received in a groove 8 in the back of the chamber 4 and is retained in place by a removable cover plate 9 secured to the back of the chamber 4.

8. In use, circulation of the coolant through the chamber 4 cools the outer surface 2 of the panel 1 and causes moisture to condense on the outer surface. The moisture (water droplets) may freeze to form a layer of ice on the outer surface 2. The beverage passes through the branch line 7 in the direction indicated by the double headed arrows in Figures 1 and 2 and is cooled by heat exchange with coolant in the chamber 4 which prevents the beverage warming up to any appreciable extent.
9. The patent contains three independent claims numbered 1, 13 and 15. Claim 1 reads:

Apparatus for dispensing a beverage comprising a dispense head provided with a dispense tap, a chamber for circulating coolant such that condensation or ice forms on an outer surface of the dispense head, and a supply line for beverage delivered to the dispense tap, the supply line being arranged on the outside of the chamber and in heat exchange relationship with the chamber.

Claim 13 reads:

Apparatus for dispensing a chilled beverage comprising a dispense head with a dispense tap for dispensing a beverage, a supply line for delivering beverage to the dispense tap, a re-circulation loop for circulating a coolant within the dispense head to cause condensation or ice to form on an outer surface of the dispense head, wherein the beverage supply line is located on an external portion of the re-circulation loop within the dispense head so that the beverage in the supply line is cooled by heat exchange coolant in the re-circulation loop without the beverage supply line contacting the coolant within the re-circulation loop.

And claim 15 reads:

A method of dispensing a chilled beverage comprising the steps of providing a dispense head with a dispense tap for dispensing a beverage, providing a supply line for delivering beverage to the dispense tap, providing a coolant chamber and circulating coolant through the chamber to cause condensation or ice to form on an outer surface of the dispense head, and arranging the supply line on the outside of the chamber and in heat exchange relationship with coolant in the chamber for cooling beverage in the supply line.

10. Before considering the documents put forward in the request I need to construe the claims of the patent following the well known authority on claim construction which is *Kirin-Amgen and others v Hoechst Marion Roussel Limited and others* [2005] RPC 9. This requires that I put a purposive construction on the claims, interpret it in the light of the description and drawings as instructed by Section 125(1) and take account of the Protocol to Article 69 of the EPC. Simply put, I must decide what a person skilled in the art would have understood the patentee to have used the language of the claim to mean.
11. To my mind the person skilled in the art is someone working in the design and manufacture of beverage dispensing equipment.
12. From the submissions made in the request I believe that it is clear that the question of validity will turn on the arrangement/ location of the supply line with regard to the chamber/re-circulation loop set out in the independent claims as follows. In the apparatus of claim 1:

“...the supply line being arranged on the outside of the chamber and in heat exchange relationship with the chamber.”

In the apparatus of claim 13:

“...the beverage supply line is located on an external portion of the re-circulation loop within the dispense head...without the beverage supply line contacting the coolant within the re-circulation loop.”

In the method of claim 15:

“...and arranging the supply line on the outside of the chamber and in heat exchange relationship with coolant in the chamber for cooling beverage in the supply line.”

13. These passages were not present in the description as originally filed which does not use the terms “outside” or “external”. With reference to the exemplary embodiment the patent shows that the branch line 7 has a portion 7a that is received in a groove 8 in the back of the chamber 4 and is retained in place by a removable cover plate 9 secured to the back of the chamber 4. I believe that the person skilled in the art would immediately realize that the references to supply line in the independent claims are referring to the branch line 7 in the figures and not what the description terms the supply line (which is not shown in the figures and extends from the keg to the vicinity of the dispense head).
14. With continued reference to the exemplary embodiment it is stated that

beverage passes through the branch line 7 and is cooled by heat exchange with coolant in the chamber 4. There is no indication in the original description as filed that the branch line 7 is in contact with either the coolant within chamber 4 or the chamber itself merely that heat exchange is used to cool a beverage passing through branch line 7. The use of definition by result in this instance does not present any particular problem since the skilled man would realise that the reference to a heat exchange relationship simply means that in use the beverage in the supply line would be at a higher temperature than the coolant in the chamber and that this provision in the claims merely requires the supply line and the chamber/re-circulation loop be positioned in close proximity with little or no insulation there between so that, in use, heat transfer can occur between the beverage and the coolant to cool the beverage.

15. The provision of a groove 8 in the back of chamber 4 and removable cover plate 9 for locating the supply line is claimed in the patent as an optional feature in dependent claim 9 which is itself dependent upon claim 8. Claim 8 (which is dependent upon any preceding claim) specifies that the chamber have an unspecified formation for locating the supply line. It is clear therefore that any interpretation of this feature of the independent claims must necessarily be broader than this. The specification of a groove in the exemplary embodiment does however allude to the apparatus having a chamber 4 which is not pierced by the branch line 7. I believe that the person skilled in the art would conclude from the terms used in the claims and the description of the exemplary embodiment that the beverage in the supply line and the coolant in the chamber/re-circulation loop be separated by at least the wall of the chamber/re-circulation loop and the wall of the supply line.
16. An alternative, and more restrictive, view of the terms “outside” and “external” envisaged by the requester is that the supply line and chamber are completely separate; by this I mean that the supply line does not in any way enter a space defined by the extremities of the chamber. This view simply isn’t supported by the description as filed since the specific embodiment requires that the supply line passes through a groove in the chamber.
17. I therefore believe that the skilled man would conclude that the passages identified above in the two apparatus claims 1 and 13 be read as meaning that the supply (branch) line is arranged in close proximity to the chamber/re-circulation loop. Likewise I believe that they would conclude that the passage identified in claim 15 have a similar meaning but additionally be specifying that, in use, a beverage be delivered through the supply line and coolant is circulated through the chamber resulting in heat transfer from the beverage to the coolant to cool the beverage.

18. I note that definition by result is also used earlier in each of the independent claims to specify that condensation or ice is caused to form on an outer surface of the dispense head in use. I do not believe that achieving such an affect (in an ordinary environment) would have presented a problem to the skilled man at the priority date, all that is required is that there be little or no insulation between the coolant chamber 4 and the outer surface 2 of the dispense head and that the two are positioned in at least close proximity.
19. Furthermore I note that claims 1 and 15 expressly require that the apparatus include a chamber for circulating coolant but make no reference to a re-circulation loop whilst claim 13 expressly requires that the apparatus include a re-circulation loop for circulating coolant but makes no reference to a chamber. In both cases I believe that the person skilled in the art would regard the omitted feature as optional rather than disclaimed from the scope of the claim.
20. I therefore conclude that the independent apparatus claim 1 be read as requiring;

An apparatus for dispensing a beverage comprising a dispense head provided with a dispense tap, a chamber for circulating coolant arranged in close proximity to the outer surface of the dispense head with little or no insulation there between and a supply line for delivering the beverage to the dispense tap wherein the supply line is arranged in close proximity to the chamber with little or no insulation there between.

21. And that the independent apparatus claim 13 be read as requiring;

An apparatus for dispensing a beverage comprising a dispense head provided with a dispense tap, a supply line for delivering beverage to the dispense tap and a re-circulation loop for circulating a coolant arranged in close proximity to the outer surface of the dispense head with little or no insulation there between, wherein the supply line is arranged in close proximity to the re-circulation loop with little or no insulation there between.

22. And similarly that the independent method claim 15 be read as requiring;

A method of dispensing a chilled beverage comprising the steps of;
(i) providing a dispense head having a dispense tap for dispensing the beverage, a chamber for circulating coolant arranged in close proximity to the outer surface of the dispense head with little or no insulation there between and a supply line for delivering the beverage to the dispense tap wherein the supply line is arranged in

close proximity to the chamber with little or no insulation there between, and

(ii) circulating coolant through the chamber and delivering beverage through the supply line to the dispense tap.

The document

23. GB2363191 was published on 12 December 2001 and relates to cooled beverage dispensing equipment, particularly for dispensing draught beers, from any type of pressurized container, including kegs and bulk beer vats. The document describes two variants of an embodiment of the invention which are illustrated in figures 1 to 4 and 5 to 8 (a selection of which are shown below) respectively. In the embodiment at the dispense end, the main tube carries a terminal component in the form of a permanently fixed dispense beer tap location piece 11, which is attached, by means of soldering, to an outer sleeve 17. The location piece 11 and sleeve 17 when soldered together form an annular chamber 9, which acts as a reservoir by capturing and re-circulating chilled water. The chilled water enters and exits this reservoir by means of two permanently soldered or adhered barbed fittings, depicted as chilled water inlet 7 and chilled water outlet 8 connected to supply line 2 and outlet line 3 (which form a re-circulation loop) respectively. The terminal component is un-insulated so that condensation can form on the outside of the tube at the terminal component.

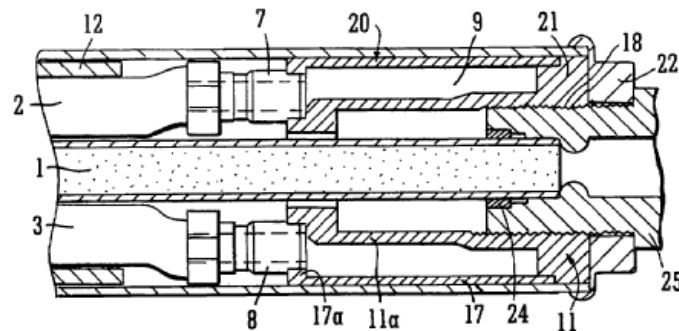


FIG. 8

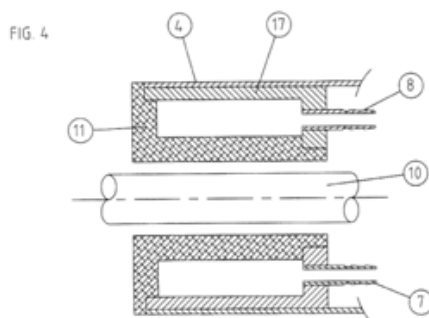
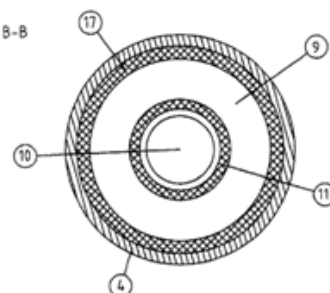
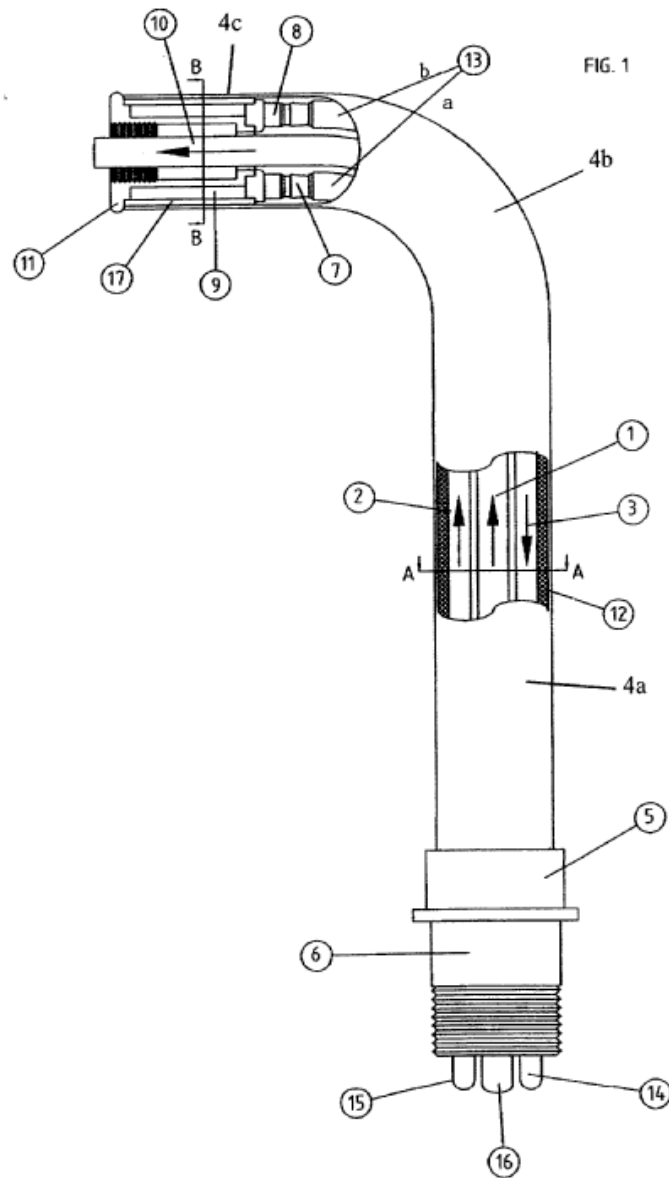


FIG. 3
SECTION B-B





24. A beer line 1 passes unabated through the dispense beer tap location piece 11. It is attached to a shank portion 25 of the dispensing tap by means of conventional tap fastening 24. The invention is said (at lines 30 to 32 on page 4) to provide a chamber at the locating point of the beer dispense tap so that chilled coolant can be circulated through this chamber to maintain the beer at the desired dispense temperature.

Discussion - Novelty

25. In assessing whether claims 1, 13 and 15 lack novelty with regard to the disclosure in the document discussed above I have considered the

requirements for anticipation set out by the House of Lords in *Smithkline Beecham Plc's (Paratoxine Methanesulfonate) Patent* [2006] RPC 10. These requirements for anticipation are (i) prior disclosure and (ii) enablement. To constitute prior disclosure a document must disclose subject matter which, if performed would necessarily result in infringement of the patent. The requirements for enablement are the same as those for a patent in general; that is to say that the skilled addressee must be able to recreate the invention.

26. The document was published a year and a half before the priority date of the patent and the disclosure therein is clear and complete enough such that the skilled addressee could easily recreate the invention described. There is no doubt in my mind that a dispense head constructed according to the teachings in the document (summarised in paragraphs 23 and 24 above) would necessarily infringe upon the construction of the independent claims 1, 13 and 15 given in paragraphs 20 to 22 above and as such these claims are not novel.
27. With reference to the dependent claims of the patent the document clearly describes the provision of circulating coolant through the chamber (claims 2 and 16) and it seems implicit that such coolant be passed through a remote cooler to cool the coolant (claim 3). I believe that both the tap location piece 11 and the outer sleeve 17 can be regarded as a panel with a front/outer surface rear/inner surface upon which the chamber is provided (claim 4) but neither of these are removable (claim 5). The chamber has a formation for locating the supply line in heat exchange relationship therewith (claim 8) but this formation cannot be regarded as a groove (claim 9).
28. With continued reference to the dependent claims of the patent the document also does not describe the provision of a visual display in response to the formation of condensation or ice (claim 6) that may include graphics (claim 7). The document does not disclose circulating coolant through the chamber in response to actuation of a dispense (claim 10) or at pre-determined intervals between dispenses (claim 11). The document also does not show providing an additional supply line to bypass the chamber so that a beverage can be dispensed with or without cooling by coolant in the chamber (claims 12 and 17).
29. The remaining claims (14 and 18) are of the form commonly known as omnibus claims.
30. To conclude this section I believe that the invention of claims 1 to 4, 8, 13, 15 and 16 of the patent to lack novelty in view of the disclosure in the document.

Discussion – Inventive Step

31. Having found claims 1 to 4, 8, 13, 15 and 16 of the patent to lack novelty I shall now proceed to consider whether the inventions set out in the remaining claims (except the omnibus claims) of the patent involve an inventive step. The tests for obviousness was first set out in *Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd* [1985] RPC 59 and has since been refined in *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588. It is this refinement of the test that I shall apply. The test has the following four steps:
- a. Identify the notional “person skilled in the art” and identify the relevant common general knowledge of that person;
 - b. Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;
 - c. 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;
 - d. 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?

Step I

32. As I mention in paragraph 11 above I believe that the person skilled in the art is someone working in the design and manufacture of beverage dispensing equipment. The person skilled in this art is well aware of the provision of branding (trademarks, logo’s etc) on beverage dispensing apparatus specific to that brand and the provision of panels indicating branding on general purpose beverage dispensing apparatus. I also believe that the person skilled in the art would be well aware that some customers prefer their beverage is not chilled and of ways to provide for this in addition to chilling the beverage for those customers that do.

Step II

33. Claim 5 specifies that the panel of claim 4 is detachable – I take this to mean that the panel is provided with a means to removably attach it to the rest of the dispense head.
34. Claim 6 relates to an adaptation of the front surface of the panel of claim 4 or 5 to provide a visual display, which may include graphics in claim 7, in response to creation of condensation and/or ice. This is elaborated in the description from line 24 on page 4 to line 2 on page 5 as being such

that the condensation and/or ice may depict a logo, brand name, slogan or other information presented to the customer; the description is silent as to how this effect might be achieved in practice. Quite possibly the person skilled in the art would consider claims 6 and 7 to be specifying the application of known surface treatments to the outer surface of the dispense head to produce the desired effect.

35. Claim 9 specifies that the formation of claim 8 is a groove in the back of the chamber.
36. Claim 10 specifies that the circulation of coolant through the chamber is in response to actuation of a dispense.
37. Claim 11 specifies that the circulation of coolant through the chamber is performed at pre-determined intervals between dispenses.
38. Claims 12 and 17 relate to the provision of a line by-passing the chamber as part of the supply line so that the beverage may be dispensed without cooling by coolant in the chamber. As, from claim 1, the supply line is for delivering the beverage to "the dispense tap" I take this to mean that the apparatus is provided with a single dispense tap connected to a supply arrangement which includes a first line which is arranged in close proximity with the chamber and a second line which is insulated (by space or material) from the chamber. Although not present in these claims the description also refers to a valve (page 6, line 28 to page 7, line 2) by which a user of the apparatus can select to dispense chilled or un-chilled beverage and I believe such a feature is essential to fulfil the requirement of claims 12 and 17 that beverage be dispensed with or without cooling.

Step III

39. With reference to the inventive concept of claim 5 neither of the items in the document which might be considered to be the panel of claim 4 (see paragraph 27 above) are detachable;
40. The difference between claims 6 and 7 construed as in paragraph 34 above and the document is that there is no suggestion of treating the surface of apparatus upon which condensation is to form so as to provide for a visual display.
41. The formation for positioning the supply line in close proximity with the chamber in the document cannot be considered to constitute a groove in the back of the chamber as required by the inventive concept of claim 9.
42. The circulation of coolant is not specified as being in response actuation

of a dispense (as specified in the inventive concept of claim 10) is not suggested in the document.

43. Similarly circulation of coolant is not specified as being performed at pre-determined intervals between dispenses (as specified in the inventive concept of claim 11) in the document.
44. The difference between claims 12 and 17, construed in paragraph 39 above, and the disclosure in the document is that there is no mention of a separate provision of beverage which has not been chilled to the dispense tap.

Step IV

45. The apparatus proposed in the document does not lend itself to modification so that either of the items which might be considered to be the panel of claim 4 is formed with a means by which it can be removably attached to the remainder of the apparatus. Whilst it might occur to the person skilled in the art to provide an additional panel, for example detailing branding, the disclosure in the document does not indicate that claim 5 lacks an inventive step.
46. As the person skilled in the art is well aware of branding and is expected to know how to create visual effects on the surface in response to creation of condensation and/or ice at the filing date of the patent it seems highly likely that they would apply this knowledge to create a branded dispense head from the disclosure in the document. It therefore follows that claims 6 and 7 lack an inventive step.
47. Considering the apparatus proposed in the document I do not believe that it would be obvious to the person skilled in the art to modify the chamber so as to provide for the supply line in something which would constitute a groove in the back of the chamber. Therefore the teaching of the document does not suggest that claim 9 lacks an inventive step.
48. I believe that the skilled man would consider the circulation proposed in the document to be continuous and/or actuated separately, for example with a dedicated switch to control the circulation pump. Without any evidence to the contrary I believe that I must conclude that it would not be obvious to modify this arrangement to only circulate coolant upon actuation of dispenses. It therefore follows that the concept of claim 10 is not shown to lack an inventive step by the teachings in the document.
49. Likewise it would not be obvious to modify the arrangement in the document to only circulate coolant at pre-determined intervals between dispenses. Therefore the concept of claim 11 is not shown to lack an

inventive step by the teachings in the document.

50. Whilst it is well known to provide both chilled and un-chilled beverage I believe that the obvious way to do this is by providing two dispense heads or a single dispense head with two taps and not a single dispense head with single tap as I believe is required by claims 12 and 17. The disclosure in the document therefore does not indicate that these claims lack an inventive step.
51. To conclude this section I believe that the invention of claims 6 and 7 of the patent to lack an inventive step in view of the disclosure in the document.

Opinion

52. In conclusion I have formed the opinion that the invention of claims 1 to 4, 8, 13, 15 and 16 of the GB 2406328 lack novelty and that the invention of claims 6 and 7 lack an inventive step in view of the disclosure in the GB 2363191. []

Application for review

53. Under section 74B and rule 98, the proprietor may, within three months of the date of issue of this opinion, apply to the comptroller for a review of the opinion.

NOTE

This opinion is not based on the outcome of fully litigated proceedings. Rather, it is based on whatever material the persons requesting the opinion and filing observations have chosen to put before the Office.

Nik Dowell
Examiner