Patents Act 1977 **Opinion Number** **05/21**

OPINION UNDER SECTION 74A

Patent	GB 2575414
Proprietor(s)	Close Brewery Rentals Limited
Exclusive Licensee	
Requester	Sapphire IP
Observer(s)	
Date Opinion issued	24 August 2021

The request

1. The comptroller has been requested to issue an opinion as to whether the invention claimed in GB 2575414 ("the patent") is new and involves an inventive step.

2. Observations have been received from the requester in reply to observations from the proprietor.

The patent

3. The patent was filed on 11 November 2019 and was granted with effect from 3 June 2020 and remains in force.

4. The title of the invention is "*Apparatus for sanitisation of brewery containers*" and on page 1 of the patent the invention is said to relate to "*apparatus for the sanitisation of brewery containers and particularly, though not exclusively, to an apparatus for applying ultra-high pressure water jets to sanitise the internal surfaces of beer casks or kegs.*".

5. One embodiment is described and shown in five figures, of which figures 1 to 3 are reproduced below. On pages 7 and 8 the figures are described as follows:

As shown in Fig. 1, a beer cask 10 is provided with an opening in the form of a shive hole 12. Once opened, the shive hole 12 allows an elongate spray lance body 14 to be inserted (horizontally or vertically dependent on the cask's orientation) into the interior of the cask 10 such that its associated spray lance head 16 is spaced from the interior surfaces 18 of the cask 10. A washing liquid is ejected from orifices 20 distributed around the spray lance head 16 in the form of jets 20 of ultra-high pressure water. Those jets 20 of water impact against all internal surfaces 18 of the cask 10 to clean and sanitise those surfaces 18 as will be described in further detail

below.

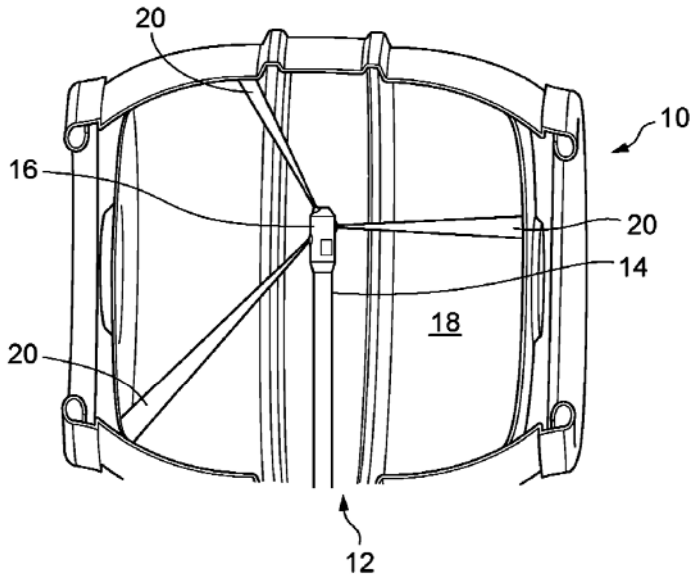


Fig. 1

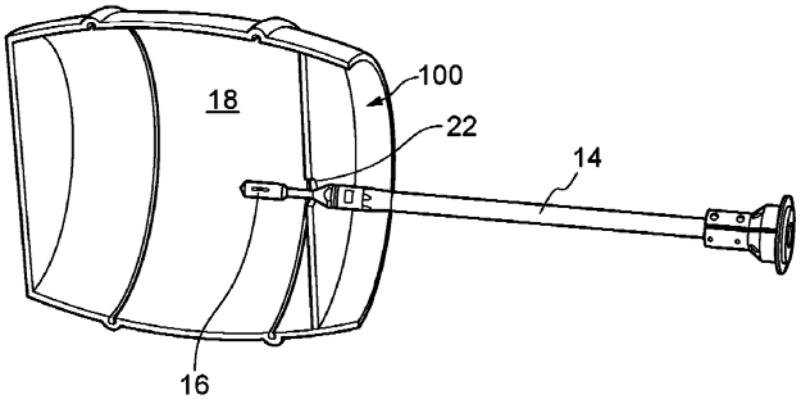


Fig. 2 shows a beer keg 100 provided with an opening 22 formed following removal of its spear. The opening allows the elongate spray lance body 14 to be inserted (horizontally or vertically dependent on the keg's orientation) into the interior of the keg 100 such that the spray lance head 16 will be spaced from the interior surfaces 18 of the keg 100. Ultra-high pressure water jets are then used to dean and sanitise those surfaces 18 in like manner to that described briefly above, and in further detail below. Also shown in Fig. 2 is an end of the elongate spray lance body 14 most distal to the spray lance head 16 to which, in use, is connected to a robotic controlling arm (not shown).

Fig. 3 shows a more detailed view of the internal structure of the spray lance body 14 and its detachable spray lance head 16. A washing liquid conduit 24 extends longitudinally along the internal central longitudinal axis X-X of the spray lance body 14. Water is pumped through the conduit 24 to the spray lance head 16 from a water source and pump (neither shown).

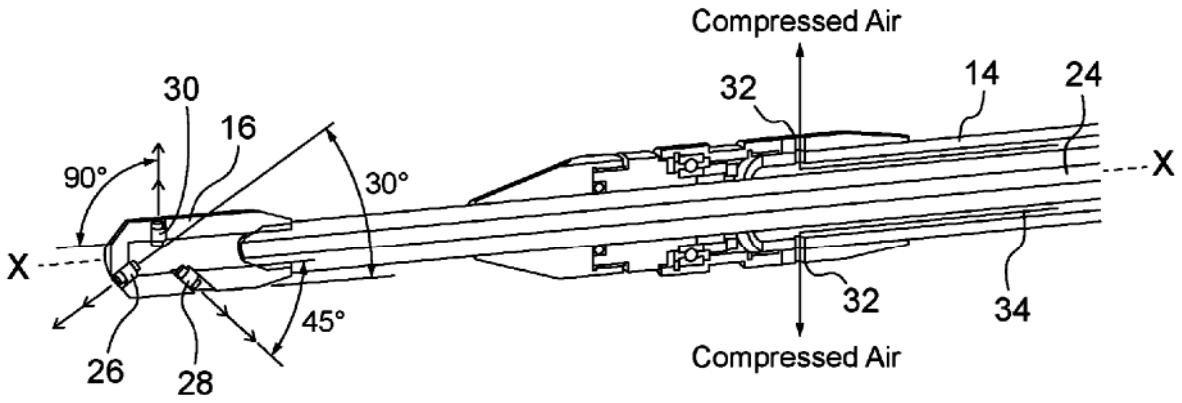


Fig. 3

Three water ejection orifices 26, 28, 30 are distributed around the spray lance head 16, each orifice being orientated to eject water at a different angular direction relative to the central longitudinal axis X-X. A first water ejection orifice 26 is orientated to eject water substantially radially with respect to the central longitudinal axis X-X. A second water ejection orifice 28 is orientated to eject water in a generally forward direction whereby the ejection angle relative to the central longitudinal axis X-X is substantially 30 degrees. A third water ejection orifice 30 is orientated to eject water in a generally rearward direction whereby the ejection angle relative to the central longitudinal axis X-X is substantially 150 degrees. All three water ejection orifices 26, 28, 30 are spaced apart both longitudinally and circumferentially. The circumferential spacing may be equal, i.e. whereby each orifices 26, 28, 30 is spaced from both of its neighbouring orifices by an angle of 120 degrees. In one embodiment, a satisfactory degree of cleaning has been achieved by means of three water ejection orifices 26, 28, 30 having round (Type S) stainless nozzles having diameters of 0.6mm and/or 0.7mm, and wherein water is ejected at a pressure of 250,000 kPa (2,500 Barg).

However, alternative spray pressure, total numbers of water ejection orifices, and differing spacings and angular orientations thereof are all possible dependent on factors such as the container's internal volume, its surface profile, its degree of soiling, or other considerations.

Also shown in Fig. 3 is two diametrically opposed compressed air ejection orifices 32 formed in the spray lance body 14, and extending radially with respect to its central longitudinal axis X-X. An annular compressed air conduit 34 extends coaxially around the washing liquid conduit 24. Compressed air is pumped through the conduit 34 to the orifices 32 from an air source and pump (neither shown).

Four compressed air ejection orifices 32 are equally distributed at 90 degree intervals around the spray lance body 14, each orifice 32 being orientated to eject compressed air generally radially with respect to the central longitudinal axis X-X. The compressed air ejection orifices 32 are located on the spray lance body 14 proximate the point of connection (see circled part of Fig. 4) between spray lance body 14 and the spray lance head 16.

The combined length of the spray lance body 14 and spray lance head 16 may be of the order of 750mm. A coupling member 40 is shown in Fig. 4 for connecting the spray lance body 14 to a robotic controlling arm (not shown).

Preliminary matters

6. The patent was the subject of an earlier opinion regarding its priority date. In Opinion 18/20 the examiner came to the view that the patent is not entitled to its claimed priority date. The statement accompanying the request for this opinion has taken the relevant date of the patent as the filing date. In the observations filed on behalf of the proprietor regarding this opinion it is stated that the patentee makes no admission that they agree with the conclusion of Opinion 18/20. Nevertheless the observations were submitted "*on the basis that the conclusions therein are upheld in litigated proceedings*". I have formed my opinion of the basis that the earliest date of the patent is the filing date rather than the claimed priority date.

Claim construction

7. Before considering the documents put forward in the request I will 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.

8. Section 125(1) of the Act states that:

> *For the purposes of this Act an invention for a patent for which an application has been made or for which a patent has been granted shall, unless the context otherwise requires, be taken to be that specified in a claim of the specification of the application or patent, as the case may be, as interpreted by the description and any drawings contained in that specification, and the extent of the protection conferred by a patent or application for a patent shall be determined accordingly.*

9. And the Protocol on the Interpretation of Article 69 of the EPC (which corresponds to section 125(1)) states that:

> *Article 69 should not be interpreted in the sense that the extent of the protection conferred by a European patent is to be understood as that defined by the strict, literal meaning of the wording used in the claims, the description and drawings being employed only for the purpose of resolving an ambiguity found in the claims. Neither should it be interpreted in the sense that the claims serve only as a guideline and that the actual protection conferred may extend to what, from a consideration of the description and drawings by a person skilled in the art, the patentee has contemplated. On the contrary, it is to be interpreted as defining a position between these*

extremes which combines a fair protection for the patentee with a reasonable degree of certainty for third parties.

10. There are 22 claims of which claim 1 is an apparatus claim and claim 16 is an independent method claim whose first step is "*providing an apparatus according to any of claims 1 to 15 and connecting same to a pump for pumping a washing liquid*". Claim 1 reads as follows:

> *1. An apparatus for cleaning the internal surfaces of brewery containers, comprising a high-pressure spray lance for application of a washing liquid against internal surfaces of a brewery container; the spray lance comprising:*
>
> *(i) an elongate spray lance body having a longitudinal axis, and being shaped and dimensioned to facilitate its at least partial introduction into a brewery container;*
>
> *(ii) a spray lance head provided at a downstream distal end of the spray lance body, the spray lance head comprising a plurality of washing liquid ejection orifices; and*
>
> *(iii) at least one compressed air ejection orifice provided upstream of said plurality of washing liquid ejection orifices.*

11. The requester comments on the interpretation to be placed on various parts of claim 1. They suggest that "*An apparatus for …*" should be taken to mean "*An apparatus suitable for …*". This construction is conventional and the proprietor does not take issue with it, nor do I.

12. For the requester "*brewery containers*" includes any container used in or at a brewery, including brewing vats, buckets, drinking glasses as used for testing brewed beer, kegs and casks, the last two "*considered to be types of barrel*". By contrast the observations filed on behalf of the proprietor argue that the phrase "*brewery containers*" is "*is clearly intended to be a generalisation covering those two types of container*", i.e. the beer kegs and casks described in the two opening paragraphs of the description. The specification seems to use "*brewery containers*" and "*beer containers*" interchangeably and also describes unpressurised casks and pressurised kegs. The only reference in the specification to the material for "*brewery containers*" comes in the sentence "*The cost of a stainless steel beer container in the United Kingdom (in 2019) is typically in excess of £40.*". This comes in the context of explaining the business model that underlies the commercial utility of the invention. It seems to me that "*brewery containers*" should be taken to mean simply unpressurised casks and pressurised kegs used in the storage and transportation of beer.

13. The statement from the requester has some difficulty interpreting "*high-pressure*" as in "*high-pressure spray lance*", but ultimately assumes "*high-pressure*" means "*water pressure above 34MPa*". The observations on behalf of the proprietor argue that "*there is no reference within the Patent to water pressures below 200,000kPa (200Mpa)*". The specification refers to:
    - "*ultra-high pressure water jets*" (line 4, page 1, lines 23/24 page 7, lines 20/21

and 27 page 9);

- "*high-pressure spray lance*" (claim 1, statement of invention page 2);
- "*washing liquid … at a pressure in the range of 200,000 to 300,000 kPa*" (lines 16/17 page 5, claim 19);
- "*washing liquid … at a pressure of 250,000 kPa*" (line 19 page 5);
- "*jets 20 of ultra-high pressure water*" (line 16, page 7)
- "*water … at a pressure of 250,000 kPa*" (line 17 page 8, lines 21/22 page 9)

14. As the proprietor observes, the only specific references are to water pressures in the range of 200000 to 300000 kPa. However, those references are found in the description of the embodiments, in dependent claims or qualified by "*optionally*" or "*In an exemplary embodiment*". At lines 11 to 14 on page 10 the description explains that variables including the water pressures "*are all variables which can be empirically derived to provide optimal cleaning and sanitisation performance for any given brewery container.*". It seems to me that the skilled reader would understand that "*high-pressure*" in the context of claim 1 means sufficiently high to clean and sanitise a brewery container to an acceptable degree and that 200000 to 300000 kPa would be a useful guide for stainless steel kegs and casks.

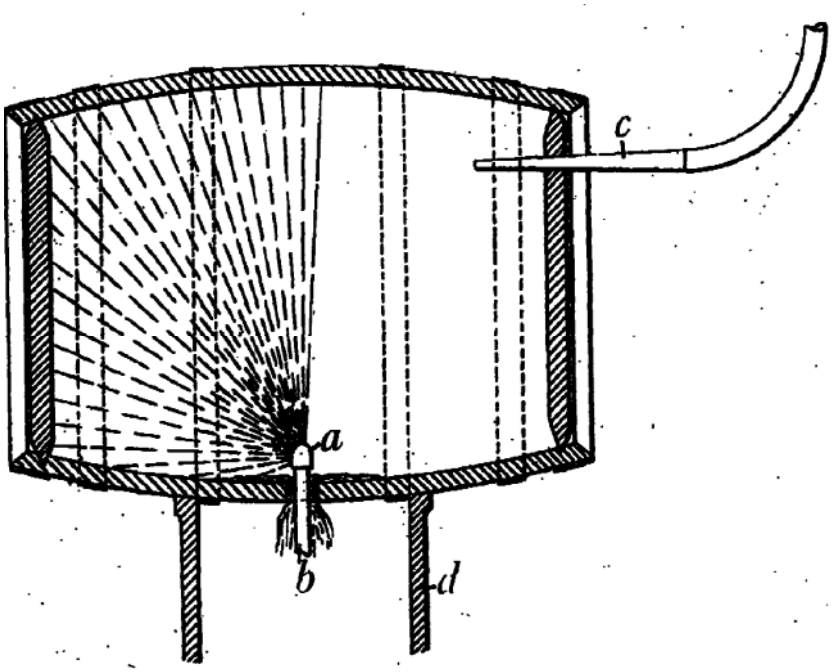
15. One further phrase from claim 1 is considered by the requester and they take "*spray lance*" to be "*a shaft upon which water outlet* [sic] *is arranged and through which water can be dispensed*". The proprietor does not take issue with this and nor do I.

Novelty

16. For novelty purposes the requester relies upon a patent document which they refer to as D1 and which was published in 1915, namely GB 10731 entitled "*Improved Means for Cleansing the Interior of Barrels, Jars and like Vessels.*". This includes a single figure, shown below, which is described as follows

> "*The water or cleansing fluid is preferably admitted by way of a nozzle a mounted on a rotatable spindle b inserted through the ordinary bung hole of the barrel, sufficient space being left for the outflow of the water. To effect a rapid outflow that will avoid any such accumulation of water as would impair the cleansing action of the jet, compressed air is admitted to the barrel preferably by way of the pipe c inserted in the ordinary tap aperture in the barrel head or end. Such compressed air whilst not impairing the efficacy of the jet, causes a rapid outflow of the water from the barrel and sets up an effective pushing action.*".

17. The provisional specification dated 2 December 1914 ends with the paragraph "*The introduction of the compressed air may be made, as for example in the case of jars and other vessels having but one aperture, by means of a supplementary pipe nested or arranged with the nozzle spindle.*". The complete specification dated 12 April 1915 has a slightly different formulation "*The introduction of the compressed air may.be made, as for example in the case of jars and other vessels having but one aperture, by means of a supplementary pipe arranged with the nozzle spindle.*". Such an arrangement is not illustrated.



18. Taking the requirements of claim 1 in turn D1 shows an apparatus suitable for cleaning the internal surfaces of brewery containers as I have construed them. The apparatus comprises a high-pressure spray lance for application of a washing liquid against internal surfaces of a brewery container. Spindle b and nozzle a form a spray lance as construed by the requester and is necessarily in accordance with "*high-pressure*" as I have construed it. The barrel is not described in any detail and the proprietor believes that it is almost certainly made of wood. As a consequence they argue that the barrel shown could not withstand the high pressures envisaged in the patent. This may be true of the exemplary pressures mentioned in the patent in the context of stainless steel kegs and casks. However, I have construed high-pressure more broadly.

19. Spindle b forms an elongate spray lance body having a longitudinal axis, and being shaped and dimensioned to facilitate its at least partial introduction into a brewery container and nozzle a provides a spray lance head provided at a downstream distal end of the spray lance body. According to the requester the figure shows a "*spray lance head comprising a plurality of washing liquid ejection orifices*". The observations from the proprietor take issue with this since "*In the absence of any description to the contrary it is assumed that there is in fact only a single orifice located at the end of nozzle (a) …*". In response the requester argues that the spray pattern shown in the figure "*indicates that more than one orifice is present in order to achieve such a broad spray pattern*". Both the requester and the proprietor refer to a Wikipedia entry for spray nozzle https://en.wikipedia.org/wiki/Spray_nozzle#Shaped-orifice_nozzle. This describes a shaped-orifice nozzle which produces a flat fan spray, but there is no mention of possible fan angles. I note that D1 refers to the nozzle and the jet of water only in the singular. It seems to me that there is no explicit disclosure in D1 of a plurality of orifices. The requester places a great deal of reliance on the precise geometry of the spray pattern shown in the figure of D1 and even then produces no evidence to demonstrate that this could only be achieved by

more than one orifice. To borrow from the General Tire judgement[1] the requester has not shown that the prior inventor of D1 had planted his flag at the precise destination.

20. The figure in D1 shows a pipe c that is separate from spindle b and is used to admit compressed air into the barrel. Such a pipe does not meet the requirement in claim 1 that the spray lance should comprise at least one compressed air ejection orifice. However, the specification refers to a supplementary pipe "*nested or arranged with the nozzle spindle*". This seems to me sufficient to say that D1 discloses a spray lance which comprises "*at least one compressed air ejection orifice*".

21. Claim 1 finally requires the at least one compressed air ejection orifice to be "*provided upstream of said plurality of washing liquid ejection orifices*". Apart from being "*nested or arranged with the nozzle spindle*" D1 is silent as to the relative positions of the air and liquid orifices and hence there is no explicit disclosure of this final requirement of claim 1. For the requester "*this must be upstream of the nozzle to avoid interfering with the water jets*", whereas the proprietor disagrees that this is implicit, arguing that for example water and air could be sequentially emitted. I do not feel that it is implicit that D1 discloses a compressed air orifice that is "*provided upstream of said plurality of washing liquid ejection orifices*".

22. Consequently it is my opinion that claim 1 of the patent is not anticipated by D1. It follows that the remaining claims are also not anticipated by D1.

Inventive step

23. To determine whether or not an invention defined in a particular claim is inventive over the prior art, I will rely on the principles established in *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588, in which the well known Windsurfing steps were reformulated:

> *(1)(a) Identify the notional "person skilled in the art";*
> *(1)(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, determine whether those differences constitute steps which would have been obvious to the person skilled in the art.*

24. The request seeks an opinion on each of two inventive step questions. The first is whether the invention claimed in the patent involves an inventive step having regard to a document which they refer as D2 when viewed with D1. D2 is a set of third party observations submitted in regard to GB patent application 1906866.7 and made public on 30 October 2019. The request also refers to document D3 which is the specification of 1906866.7 published as GB2571465 on 28 August 2019. The second question is whether the invention claimed in the patent involves an inventive

[1] *General Tire & Rubber Company v Firestone Tyre & Rubber Company Limited*, [1972] RPC 457

step having regard to document D1 when viewed with D2 and/or common general knowledge. I shall deal with the second question first. However, the initial Windsurfing/Pozzoli steps are the same for both questions.

25. According to the requester the notional person skilled in the art is "*the designer of apparatus for cleaning of the internal surfaces of brewer containers. This includes, inter alia, kegs, casks, vats and barrels.*". For the proprietor the skilled person is "*A brewing container processing engineer (or similar) with responsibility for providing overall technical support to a brewery manager; and ensuring that all aspects of a keg and cask processing line (i.e. of the type shown in Figs. 5 and 6 of the Patent) are operating correctly.*". The requester disagrees and argues that there is no justification for the view of the proprietor. I do not believe that anything turns on the matter, although I have more sympathy with the requester. It seems to me that the skilled person would not have an operational role within a brewery as the proprietor suggests and would be a designer of cleaning systems of the kind with which the invention is to be used.

26. Up to a point the requester and proprietor seem to agree as to the common general knowledge of the skilled person insofar as it relates to arrangements and processes for cleaning brewery containers in cask and keg processing lines. The requester goes further and asserts that documents D1 to D3 would also form part of that common general knowledge. To support the assertion they quote part of paragraph 60 from *Teva UK Ltd & Anor v Astrazeneca AB* [2014] EWHC 2873 (Pat), the complete paragraph is as follows:

> "*The authorities indicate that CGK includes not just information directly in the mind of the notional skilled person, but such information as he would be able to locate by reference to well-known textbooks. This guidance needs to be adapted and kept appropriately up to date for the procedures for dissemination of scientific knowledge in the age of the internet and digital databases of journal articles. Searches of such databases are part and parcel of the routine sharing of information in the scientific community and are an ordinary research technique. In my view, if there is a sufficient basis (as here) in the background CGK relating to a particular issue to make it obvious to the unimaginative and uninventive skilled person that there is likely to be - not merely a speculative possibility that there may be - relevant published material bearing directly on that issue which would be identified by such a search, the relevant CGK will include material that would readily be identified by such a search.*"

27. On the basis of this they argue that "*a simple search for a solution with which the skilled person is presented will readily results* [sic] *in the uncovering of D1*", but they offer no reasons why D2 and D3 would also form part of the relevant common general knowledge. It seems to me that the quote above is not suggesting that any material that might potentially be identified by a search necessarily forms common general knowledge. In this case the requester has not established any "*sufficient basis … in the background CGK*" to draw any or all of D1 to D3 into the common general knowledge. The proprietor quotes from *General Tire & Rubber Co v Firestone Tyre & Rubber Co Ltd* [1972] RPC 457 to argue that D1 to D3 are not common general knowledge:

> "*… it is clear that individual patent specifications and their contents do not normally form part of the relevant common general knowledge, though there may be specifications which are so well known amongst those versed in the art that upon evidence of that state of affairs they form part of such knowledge, and also there may occasionally be particular industries (such as that of colour photography) in which the evidence may show that all specifications form part of the relevant knowledge.*"

28. It is my view that documents D1 to D3 in themselves are not relevant common general knowledge.

29. In their observations in reply the requester argues that "*it is well-known that a nozzle may have more than one outlet and the skilled person will be well aware that multiple high-pressure nozzles are commonly known for cleaning casks and barrels.*". They base this argument on a reference to a Wikipedia page to which the proprietor refers in their observations, that is https://en.wikipedia.org/wiki/Spray_nozzle#Shaped-orifice_nozzle. The requester refers to a different part of that webpage and to a reference at the foot of the webpage, provided as document D6 with the observations in reply. I think it is stretching a point to say that this is an observation strictly in reply and I am reluctant to rely on document D6, not least because the proprietor has no opportunity to dispute the requester's point. Nevertheless the proprietor did introduce the Wikipedia page and it does include the following passage for which document D6 provides the reference "*Multiple outlets on nozzles are present on spray balls, which have been used in the brewing industry for many years for cleaning casks and kegs.*". Tentatively, bearing in mind that the passage I have quoted is itself undated, I will take it that such multiple outlet nozzles would form part of the common general knowledge for the purposes of this opinion.

30. Regarding the inventive concept, in the statement accompanying the request the requester says "*As the only difference between claim 1 and D2 is the compressed air ejection orifices, that must be considered the inventive concept of claim 1*". The proprietor argues that there is a difference between an inventive step and an inventive concept and the approach taken by the requester renders the third step of the Windsurfing/Pozzoli approach redundant. They go on to identify the inventive concept as:

> *A device for internally cleaning brewery containers, including a high-pressure lance for insertion into the containers for dispensing high-pressure liquid; whereby*
> - *liquid is emitted from at least two orifices on the lance head; and*
> - *a compressed air orifice is provided on the spray lance;*
> - *the compressed air orifice is provided upstream of the lance head.*

31. In response the requester largely accepts this formulation, except they believe the last two bullets should be changed to "*providing compressed air into the brewery container to remove wastewater therein*". Nevertheless they adopt the concept identified by the requester in their observations in reply regarding the subsequent steps.

32. Whilst I do not entirely disagree with the proprietor, the inventive concept they

identify is slightly different from claim 1. I have already construed the claim above and I will use that construction to come to an opinion.

33. The next step is to 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. In the context of the second question in the request the matter cited is document D1. According to the statement from the requester "*the only item not clearly and unambiguously disclosed therein is the "high pressure spray lance"*". The requester identifies the following three differences: claim 1 requires a plurality of orifices on the spray head, at least one compressed air orifice provided on the spray nozzle and the compressed air orifice must be positioned "*upstream of the lance head*". In their observations in reply the requester denies there are any differences between claim 1 and D1, but contends that the differences suggested by the proprietor are obvious. I believe that the differences are those that I said above distinguished claim 1 and D1, that is there is no explicit disclosure in D1 of a plurality of washing liquid ejection orifices nor of a compressed air orifice that is "*provided upstream of said plurality of washing liquid ejection orifices*".

34. The last step for the second question in the request is to, "*Viewed without any knowledge of the alleged invention as claimed, determine whether those differences constitute steps which would have been obvious to the person skilled in the art.*". Since the differences I have identified differ from those in the statement accompanying the request, it is unsurprising that the statement does not assist me in coming to an opinion. The proprietor suggests that the skilled person seeking to improve on D1 would most likely experiment with different cleansing fluids and/or steam. This does not really address whether the differences I have identified would have been obvious. In the observations in reply the requester asserts that "*at least two orifices*" is well within the skilled person's common general knowledge based upon D5 and D6 and further that locating the compressed air orifice upstream of the liquid ejection orifices "*is simple trial and error and workshop modification*".

35. Taken in isolation each of the two differences I have identified seems to me to be only a small difference. In itself this is not enough to show that a difference would have been obvious. It is also worth noting that the person skilled in the art is generally thought to be unimaginative, see for example the second step of the *Windsurfing* approach before reformulation "*Assume the mantle of the normally skilled but unimaginative addressee in the art at the priority date and to impute to them what was, at that date, common general knowledge of the art in question.*".

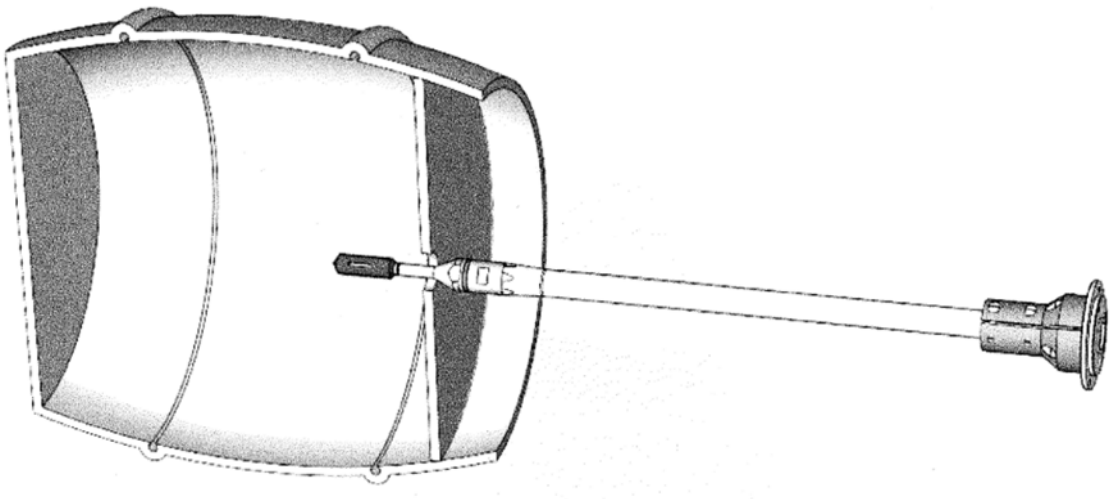
36. There is no explanation in D1 of how to realise the alternative of "*a supplementary pipe nested or arranged with the nozzle spindle.*". The unimaginative skilled person would realise the need to apply or acquire the knowledge required to provide the supplementary pipe, including its position relative to the nozzle and jet. Document D1 implies no favourable or unfavourable location for the pipe and it would seem reasonable for the skilled person to try placing the pipe in a number of locations including upstream of the liquid ejection orifices. There seems to me to be no inventive step in the upstream location specified in claim 1.

37. I have taken it that multiple outlet nozzles form part of the common general knowledge of the person skilled in the art. D1 has little to say about the nature of the nozzle that is needed to form the jet required to clean the barrel. However, it does

only refer to a single nozzle and a single jet. I have been given no reason to believe that the unimaginative skilled person when presented with D1 would perceive a problem with a single nozzle and a single jet. It seems to me that they would have no motivation to employ an alternative solution to that disclosed in D1. Consequently in my opinion claim 1 is not obvious having regard to document D1 and common general knowledge.

38. I shall turn now to the second inventive step question in the request, that is whether the invention claimed in the patent involves an inventive step having regard to document D2 when viewed with document D1. Document D2 is a letter from Cameron Intellectual Property dated 25 October 2019 making Third Party Observations regarding UK patent application 1906866.7 and placed on the publicly available part of the application file by 30 October 2019, that is before the filing date of the patent, but after the priority date. The observations include a table comparing the integers of the independent claims of 1906866.7 and of another UK patent application 1904537.6. Along with the letter D2 includes a two page description of a process to be patented, a process flow chart, seven pages of pictures and some correspondence relating to the filing of the observations.

39. According to the requester the only feature of claim 1 that is not explicitly shown in D2 is "*at least one compressed air ejection orifice provided upstream of said plurality of washing liquid ejection orifices*" in other words they believe that this is the only difference between the matter cited and the inventive concept. The proprietor agrees that D2 does not show any air ejection orifices, but also argues that D2 fails to disclose a plurality of washing liquid ejection orifices. In response the requester points out that one of the figures in D2 is effectively identical to figure 2 of the patent which embodies the inventive concept and reasons that "*the lance in D2 must, implicitly, also have the plurality of washing liquid ejection orifices*". The figure from D2 is shown below and I agree with the requester that it is much the same as figure 2 in the patent. However, I disagree that D2 in itself shows a plurality of washing liquid ejection orifices. It is not possible to make out from the figure below any detail of washing liquid ejection orifices. Consequently I agree with the proprietor that the differences between D2 and the claim as I have construed it are a plurality of washing liquid ejection orifices and at least one compressed air ejection orifice provided upstream of a plurality of washing liquid ejection orifices.



40. The requester argues that "*D1 teaches the skilled person to put a compress* [sic] *air supply onto the shaft of the spray lance*" and that it is obvious "*when using the device of D2, to turn to the solution presented by D1 to arrive at all of the features of claim 1 of the patent.*". There is no comment in the statement accompanying the request regarding the air ejection orifice being provided upstream of the washing liquid ejection orifices.

41. I have already concluded that there is no explicit disclosure in D1 of a plurality of washing liquid ejection orifices nor of a compressed air orifice that is "*provided upstream of said plurality of washing liquid ejection orifices*". It follows that it is my view that the disclosures of documents D2 and D1 when combined do not show all of the features of claim 1 and as a result claim 1 is not obvious having regard to document D2 when viewed with document D1.

42. Had I concluded that D2 and D1 between them did disclose all of the features of claim 1 then I would have to go on and consider whether the skilled person would consider the two documents together, for example whether D1 exemplifies common general knowledge or whether the skilled person presented with D2 would perceive a problem and be motivated to seek a solution and further would find that solution in D1. As it is I have no need to consider the matter further.

43. Having formed the view that the invention of claim 1 involves an inventive step it follows that the remaining claims must also involve an inventive step.

Conclusion

44. It is my opinion that the invention claimed in the patent is new and is inventive having regard to the documents referred to in the request and common general knowledge.

Karl Whitfield
Examiner

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.